



PORTER'S
PROGRESS OF NATIONS



ALBERTA

LEO THWAITE



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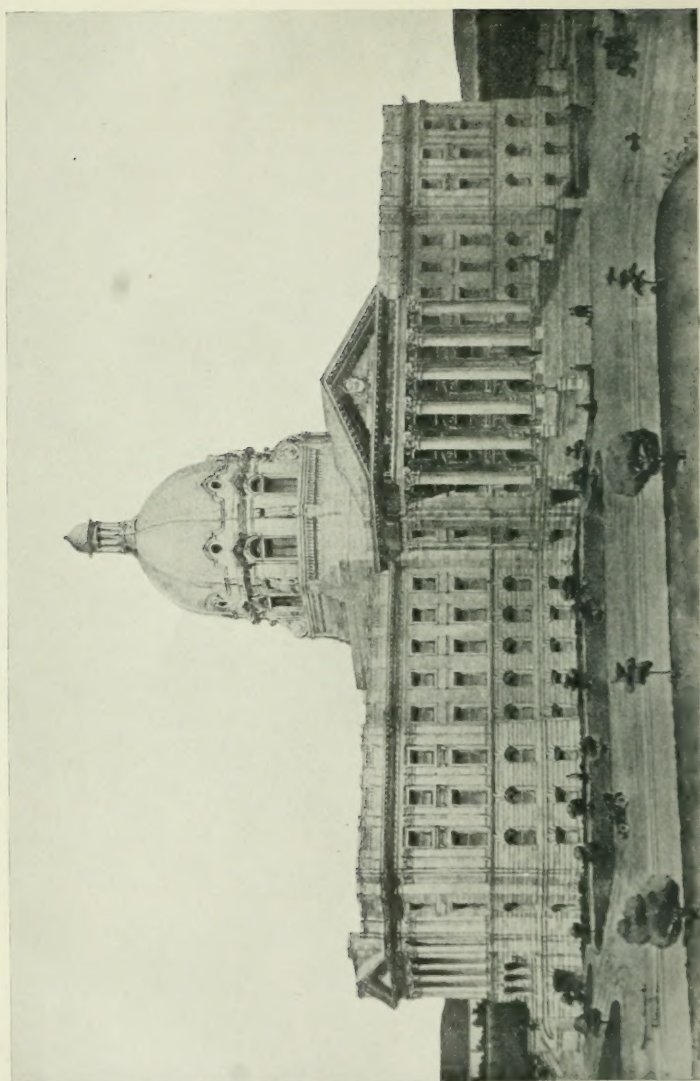
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PORTER'S PROGRESS OF NATIONS

ALBERTA



PARLIAMENT BUILDINGS, EDMONTON

(PORTER'S PROGRESS OF NATIONS)

ALBERTA

AN ACCOUNT OF ITS WEALTH
AND PROGRESS

BY

LEO THWAITE

WITH AN INTRODUCTION BY

ROBERT P. PORTER

AUTHOR OF 'THE TEN REPUBLICS', 'THE FULL RECOGNITION OF JAPAN,' ETC.

WITH SIXTEEN ILLUSTRATIONS
AND TWO MAPS

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'To point out the progress of the nation—not of this or that section of its inhabitants, but the progress of the whole social system in all its various departments, and as affecting all its various interests—is the object proposed, while the means employed for its accomplishment will, as far as possible, be sought for in well-authenticated facts, and the conclusions which these suggest will be supported by principles the truth of which has in general been recognized by common consent.'

(From The Progress of the Nation, by George Richardson Porter [1836-43].)

INTRODUCTION

THE PROGRESS OF ALBERTA

THE story of the origin and rise of Alberta as a great province of the Dominion of Canada is fresh and full of human interest, and it is told in a most attractive style. The author has made an extensive tour of the province, visiting all the important towns and many of the notable places, and has shown a friendly interest in the people. The narrative carries with it conviction, because the writer evidently believes in the future greatness of the province, and is in full sympathy with those upon whom that future so largely depends.

Apparently no facts necessary to a comprehensive description of the climate, physical characteristics, movement of the population, and social condition of the people are omitted, and many personal impressions and incidents have wisely been included which are of interest to the general reader who

wants to know something about the life of the people. It would be ungracious not to take this opportunity of congratulating the author on the inclusion of these delightfully human touches, which are usually so conspicuously absent in books dealing with economic subjects. The account of the writer's personal experiences in journeying through this land, so full of hope and promise to those who have sought homes there, presents a living picture of life in the 'Last Great West', which not only gives additional charm to the volume, but will add greatly to its value to those who are seriously thinking of improving their condition by emigrating to a land where steady, honest work meets with certain and speedy reward.

This book on the wealth and progress of the province of Alberta is the first of the Canadian series of 'Porter's Progress of Nations', and deals with a subject that should be of special interest to all classes of British readers. To the financier and capitalist the volume suggests a profitable and safe field for investment. Those particularly interested in railway finance and management will find within its covers surprising accounts of the rapid development of the principal railway systems. In ten years the railway mileage of Canada has increased 50 per cent., her passenger traffic has doubled, and the gross earnings of her railways have multiplied nearly threefold. In Alberta the Canadian Pacific is engaged in a stupendous irrigation scheme, and this enterprising railway is also furnishing 'ready-made farms' for the better

class of immigrants. The farms, we are told, find purchasers as fast as they come into the market. The Grand Trunk is rapidly pushing its line to the Pacific to give an additional outlet for the grain of the province and to be in readiness to take advantage of the opening of the Panamá Canal. The Canadian Northern, itself a phenomenal instance of modern enterprise, is covering the wheat-fields with a network of rails where they are most needed in the development of this great belt of fertile lands and mineral wealth—black earth above, coal, natural gas, and petroleum below. The Canadian Northern, whose boast it is that it has laid rails since the beginning of the present century at the rate of a mile per day, is also extending to the Pacific, and even contemplates a possible extension northwards to Hudson Bay.

Those interested in engineering and in contracting work may learn something of the projected railways, as also of those in course of construction, and may become acquainted with the mighty waterfalls that are to be harnessed to supply the new towns, springing up on all sides, with light, heat, and cheap power for manufacturing purposes. Mining engineers will be interested in the great coal-fields and in the other mineral resources of the province, the oil-fields, and the mysterious natural gas which has made at least one town in Alberta famous the world around.

The sportsman contemplating a visit to Alberta in search of big game should read the stirring chapter describing the opportunities afforded for hunting, shooting, and fishing, whilst the lovers of

grand scenery will find abundant delight in the account of the many vast areas, amounting in the aggregate to thousands of square miles, set aside for all time as national parks.

The above attractions and much besides form the incidental part of the Alberta volume; they are mentioned by the author with a view of interesting the general reader of a book primarily intended for those of the British public who are anxious to improve their condition by emigrating, and who prefer in so doing to cast their lot amongst their own people, and thus to continue to enjoy the privileges afforded by a British form of government, together with the protection of the British flag. To this latter class of readers a trustworthy account of the progress and present condition of a province with such splendid possibilities for settlement as Alberta possesses should have a real significance. A message brought to them direct by one fresh from the scenes of such activities, and filled with enthusiasm for what has been accomplished in such a remarkably short time, may have a deciding influence in determining the future of many who are thinking of seeking a new home but who are uncertain as to the field which offers the best opportunities. The facts which they should know before making such a momentous decision have all been carefully obtained, and are admirably set forth in the pages which follow.

Alberta, at the present time, is in the stage of development that compares with Illinois, Iowa, and Wisconsin say, a generation ago—the agricultural

stage. She wants farmers and home-builders, and to those seeking opportunities of this kind it would be difficult to find a better field for their endeavours. The farms herein described may be obtained in different ways, from free homesteads for those with no capital except strong arms and stout hearts and who are not afraid of roughing it a little, to the 'ready-made farms' for those who have sufficient capital to purchase land on what appears to be a fair and reasonable basis. It may be well to remember that the settlement of the new or 'Last Great West' will, for obvious reasons, be accomplished much more rapidly than the settlement of the West we remember in our youth.

Already in Alberta important industrial and commercial centres have come into existence, and manufactures of all kinds are being established. A State whose territory is underlaid by coal and oil and natural gas, that is well supplied with timber and minerals of many kinds, together with good water-power, is not likely to remain long in the purely agricultural stage of development. The western prairies of the United States took longer to develop than these new prairie provinces of the Dominion will do, now that the attention of the outside modern world, with its vast capital and pressing need for new enterprises, has been directed to the latent resources awaiting exploitation. The concisely written chapters on the towns of Alberta give an excellent account of the way the factories and the mills are following the lines of agricultural development ; in another chapter labour conditions

are discussed, and the chapter on transport shows how the railway is preceding the farm throughout this fertile belt. The most striking of the several illustrations in the book is the one showing a modern locomotive with a finely equipped train of cars winding its way through a vast wheat-field where the ripe grain stands in shocks ready for the journey east or west. How long do we suppose this state of things will last? The answer to the question will be found in the fact that no less than four chapters of this volume are devoted to the cities and towns of Alberta.

The time has come to act, and those who feel that, on their own account as well as for the future welfare of their children, a change is desirable, would do well to study the progress of this part of the empire. If satisfied with the conditions as set forth in this work, they should take up land before the best of it has been absorbed, and before the development of commerce and manufactures makes the price prohibitive. The migration of a large farming population from the United States to Alberta in itself substantiates all that the author of this volume says of the opportunities which exist for the right class of workers in the province.

The reader is given frequent glimpses of the farm as also of the home and town life of Alberta. These show how greatly the former hardships of pioneer life have been mitigated in these days of rapid railway construction, electricity, motor-cars, telephony, and other labour-saving mechanical devices, all of which seem to have penetrated to

these districts, bringing the people nearer together, and making life easier and less lonesome for the women folk than it was in the days of the earlier pioneers.

Speaking of women, the real home-builders for latter-day pioneers, reminds us of the chapter on 'Women and their Work', in which will be found much useful information both for the wives of prospective emigrants and for single women who contemplate making Alberta their future home. The character and opportunities of the employment awaiting them, the wages paid, how the women live, the cost of board and of clothing, and many hints as to the sort of equipment needed to start with are all discussed. It is not alone as wives and mothers and home-makers, and in domestic work, however, that Canadian women excel, for we are told they are becoming quite prominent in all kinds of business; buying and selling land, conducting estate 'deals', editing newspapers, and making themselves felt in a manner highly creditable to their judgement and to their adaptability in new surroundings.

This latter evolution of the gentler sex when brought in contact with the bracing air of the free and unfettered prairies of Alberta must at times be discouraging to the men, who, it is said, are 'sadly in need of wives' of the not-too-extravagant sort, but who no doubt imagine themselves quite capable of editing newspapers, conducting estate and other 'deals', and taking profits. From all accounts the women of Alberta by no means lead a life of loneliness and drudgery, and their lot is more

likely to arouse the envy of their less enterprising sisters who remain at home than to claim their sympathy.

These and many other points are clearly brought out in the chapters following, and we not only have a detailed account of the wealth and economic progress of Alberta, but a pen-picture of the country and the people, as also a description of how they actually live, their occupations and homes, their sports and their amusements. It is well to know something of the personality of the men and women who are making these vast possessions of the British Empire yield abundantly of the fruits of the earth, and who with their fellow-workers elsewhere in Canada are able to point with pride to an aggregate yield of 175,000,000 bushels of the world's wheat supply as a single year's achievement. Surely we have here a progress sufficiently important and far-reaching to be worthy of a prominent place in the economic history of modern nations. Moreover, it is the story of a development which many with good reason believe is only in its infancy.

R. P. P.

S.S. *Vaderland*,

ATLANTIC OCEAN, *November 20, 1911*

THE PROVINCE OF ALBERTA
AN ACCOUNT OF ITS WEALTH AND PROGRESS
BY
LEO THWAITE

TO THE
PIONEERS, BOTH MEN AND WOMEN, OF
ALBERTA
BY WHOSE COURAGE, ENERGY, AND FAITH, A WILDERNESS
HAS BEEN CONVERTED INTO A FRUITFUL LAND
THIS VOLUME IS RESPECTFULLY
DEDICATED
BY THE AUTHOR

LONDON,

December 22, 1911

CHAPTER I

THE WINNING OF THE NORTH-WEST

THE dream of a north-west or short route to China and India had a never-failing attraction for the British navigators and 'Merchant Adventurers' of the sixteenth and seventeenth centuries. More than fifty years before Hudson started in vain search of this passage by way of the western hemisphere, John Merrick, an Englishman representing the Merchant Trading Company in Moscow, had asked permission of the Tsar to make explorations for the same purpose by way of the eastern hemisphere and the river Obi, which enterprise was never sanctioned. The adventure, like that of Hudson, led to other results, important among which was the establishment of the first English colony of traders near Archangel, and the founding of the 'Merchant Adventurers' most honourable Company'. Upwards of fifty years later, Hudson, another Englishman, started under the auspices of the Muscovy Company *via* North America in search of the short passage to China. This expedition, like the one attempted by way of the eastern hemisphere, failed of its object, but gave to the world the knowledge of a famous inland sea and a great river, both called after the discoverer, the one destined to become

famous as the centre of an extensive fur trade, and the other fated to bear upon its waters in years to come the commerce of two empires. The results of both of these expeditions appear to have been beneficial to British commerce, though the importance of the discovery of Hudson Bay was not at the time appreciated, and the great inland sea with the vast adjacent North-West Territory, of which the foothill province of Alberta is such an important part, nearly fell into other hands.

In 1619, Jens Munck, a Dane, with two ships—a frigate and a sloop, carrying respectively crews of forty-eight and sixteen men—was commissioned by King Christian IV of Denmark and the traders of Copenhagen to explore and colonize Hudson Bay and to make of it a Danish possession. After a year's experience amidst the ice and snow of those northern seas, and after encountering hardships which it is difficult to believe could have been endured by man, Munck returned home, with but two survivors of his brave band of adventurers and without having discovered either a new kingdom or a North-West Passage for his king. He desired to make another venture, but war broke out in Europe, and he rejoined the navy, remaining in active service until his death in June 1629, so the work on which his heart had been set fell to the ground.

For fifty years after the death of Munck little was heard of Hudson Bay and of the wide territory stretching from Manitoba to the Pacific Coast, destined to be included in the Royal Charter which Charles II eventually accorded to the 'Governor and Company

of Adventurers of England trading to Hudson Bay'. Thus the larger part of a great unexplored country was deeded away for 'two elks and two black beaver'. For more than two centuries the history of Canada, and in a lesser degree that of the North-West Territories, is comprised in the history of the Hudson's Bay Company. The operations of this Company in their entirety are so closely identified and interwoven with the history and development of Canada and of its various provinces, as we know them to-day, that an account of them would be equivalent to writing a history of the Dominion, and cannot be dealt with in this volume.

Incorporated in the year 1670, the Hudson's Bay Company claims the unique distinction of being the oldest incorporated company in North America, and one of the oldest in the world. It was started as a trading company pure and simple, and not only has it shown in its remarkable history great shrewdness and business skill, but it has been aptly described as 'the governing power over an Empire comprising nearly one-half of North America, the patron of science and exploration, the defender of the British flag and name, and the fosterer to a certain extent of education and religion'. To-day its stores, trading-posts, land, and other holdings extend throughout the length and breadth of Canada, while in the early days its trading-stations were the outposts of civilization—the advance guard, so to speak, that paved the way for the present rapid development of this, 'the Last Best West.'

The events which led to the formation of the

Hudson's Bay Company may perhaps be briefly referred to as part of the early history of Alberta. The struggle was soon to begin not only for the possession of Hudson Bay but also for the vast unexplored territory which was known to exist inland from the Bay, and in later years the accounts of the long, fierce contest between the two great trading companies—the Hudson's Bay and the North-West—partake rather of romance than of trade and commerce.

To return for a moment to the origin of the Hudson's Bay Company. While Charles II was still King of England a royal commissioner from his court, Sir Charles Carteret, arrived home from North America accompanied by two Frenchmen, the younger of whom, Pierre Esprit Radisson, was already known in the New World as having brought 600,000 beaver skins to Quebec, the result of a single trip to the North. This astounding fact had been chronicled with the wealth of detail usual even in those days, and naturally attracted the attention of a monarch who, though addicted to pleasure, showed great interest in trade. The time was therefore opportune not only for the French enthusiasts, Radisson and his companion Groseillers, who were to lead the way to Hudson Bay, but also for the royal personages who were anxious to engage in new and profitable undertakings. Radisson and Groseillers had much to tell concerning their adventures, but the story of the sea which had been discovered many years previously by Hudson interested the English sovereign particularly, and he

made himself responsible for the comfort and maintenance of Radisson and his fellow adventurer. Prince Rupert had already been won over to their cause, and within twelve months the two Frenchmen had been furnished, at the king's request, by James, Duke of York, then head of the navy, with a ship to take them back on a voyage of discovery to Hudson Bay. Meantime Prince Rupert and his friends had formed an organization henceforth known as 'The Gentlemen Adventurers of England trading to Hudson Bay', the records of whose achievements are still to be found among the archives of the Hudson's Bay Company in England, achievements which ended in the founding of a greater empire for England than had ever yet been dreamed of.

The first voyage of these gentlemen adventurers was so successful that before they started on the second a Royal Charter had been applied for, and was granted by King Charles, giving to 'The Governor and Company of Adventurers of England trading to Hudson Bay' a monopoly of trade and profits for all time to come. So wide was the scope of the charter and so liberal was its wording that, as subsequent events proved, practically one-half of America was deeded away in utter ignorance of all that was to come, for the charter decreed that if trade should lead these adventurers away from Hudson Bay where no other discoverers had been, they had a right to take possession of the territory. In the years which followed, the company extended its possessions indefinitely from Hudson Bay to Alaska and from Alaska to California. Prince

Rupert was the first governor, and with him were associated seventeen others, their territory in those early days being known as Rupert's Land, while the tribute exacted, as token of allegiance to their king, was the presentation of 'two elks and two black beaver' whenever he should enter their domains.

From the moment of its inception the story of the Hudson's Bay Company reads like a fairy legend. For exactly one hundred years (from 1682 to 1782) the Company fought the ground inch by inch against the French, in total disregard of the treaty which had been signed agreeing that the Bay should be held in common by English and French fur traders.

Though much was said in the early days to the effect that the Hudson's Bay Company did not explore the country over which they held sway, a good deal of exploration work undoubtedly stands to their credit. As early as 1690, Henry Kelsey, an employee of the company, had penetrated to the present province of Manitoba and the Saskatchewan River. In the year 1756 the Hudson's Bay Company voted £20 to Anthony Hendry for his remarkable voyage from York on Hudson Bay to the Forks of the Saskatchewan. Hendry was the first Englishman to visit this now famous region, which was then the land of the Indian, and is now one of the three prairie provinces.

Until the vast prairies of the North-West became the scene of the contest for the possession of the fur trade, they had never been seen by a white man, and the name of Pierre Gaultier de Varennes, Sieur

de la Verandrye, known in later days simply as Verandrye, will always be remembered in this connexion as that of an intrepid explorer. At the end of August, 1731, having made all his arrangements, Verandrye and his little band of unwilling *voyageurs* started inland from the shore of Lake Superior and for four years pushed steadily forward into what was then entirely unknown country. Their subsequent decision to leave the rocks and woods of Lake Superior and to seek the broad prairies of the West appears to have been a wise one, for in this way the region which is now the fertile Canadian prairies was opened to civilization.

In 1771 Samuel Hearne, a well-educated young Englishman serving as a clerk in the Hudson's Bay Company at Churchill, journeyed for the first time across the famous Athabasca country and the region north of it to the Arctic Sea. Hearne was by no means an inexperienced traveller. A man possessing the subtle power of impressing the Indian mind, he had been two years previously commissioned ostensibly to find the Metal River, now known as the Coppermine. Hearne's real object was the occupation of a vast region not yet pre-empted by the Canadians. He succeeded in directing attention to the Arctic Sea, which has proved a hunter's paradise ever since, and in opening up a region of fertile country half the size of European Russia. He proved, moreover, that it was not a narrow strip of land which lay between the Atlantic and the Pacific, but a vast continent. Hearne's report, which was received in London in 1772, in a measure

refutes the charge that his company were entirely lacking in energy and enterprise.

The Hudson's Bay Company thus appear to have adopted a new policy, and they then began to develop a long line of posts into the interior which would serve to carry on the chief trade, and would also become depôts for the storage, as well as points of departure for the Old World, of the furs to be brought there. In 1795, the post known as Edmonton House on the north branch of the Saskatchewan River was built, hexagonal in form, with high pickets and bastions and battlemented gateways, on the summit of an almost perpendicular height commanding the river. In the following year, as a half-way house to Edmonton from Winnipeg on the Saskatchewan, Carlton House was completed, the erection of these and many other buildings having been necessitated by the severe competition resulting from the activities in the immediately preceding years of the Montreal fur merchants, which greatly diminished the all-round profits and did not prove beneficial to the Indians, who, according to one writer of the period, 'became degenerated and debauched through the excessive use of spirituous liquors imported by these rivals in commerce.' These same Montreal fur merchants, who were mostly Scotsmen attracted to Quebec and Montreal after the capture of Canada by General Wolfe in 1759, had revived the fur trade in the interior. The story of their achievements, though full of interest, is too long to be dealt with here. For a period trade declined, and in 1782 there were only twelve traders

left. Then followed the scourge of small-pox which swept over the country and completely blotted out several bands of Indians, thus dealing a severe blow to the former prosperity, as the fur traders depended largely on the Indians as trappers. The determination shown about this time by the Hudson's Bay Company to regain their hold on the trade led to the amalgamation in 1783-4 of their rivals, the Montreal merchants, into the North-West Company.

A few years later, another company—the 'X.Y.' Company—was organized by Peter Pond, and was so called because its bales of furs were marked 'X.Y.' to distinguish them from those marked 'N.W.' Peter Pond had been overlooked when the North-West Company was launched. He had been to the North-West in 1775, and in 1778 had built the first fort in the far distant region which had become known as the Fur Emporium of the North-West. With another trader, an American like himself, Peter Pangman by name, Pond succeeded in establishing a company in strong opposition to the North-West Company. Forthwith the country was divided up by the X.Y. Company and given to its partners and traders. Athabasca fell to a trader named Ross, and the Saskatchewan district to Pangman. For some time the conflict between the two Montreal companies almost obscured that with the English traders from Hudson Bay. In the Athabasca district, however, there was the powerful influence of the Hudson's Bay Company to contend against, and the old Company from the Bay long maintained its hold on the northern Indians. At Slave

Lake, Fort Resolution was established, and later on a point was reached which was subsequently to be known as Fort Providence. Presently, in 1804, the two Montreal companies became united, and this led to a great expansion of trade. In 1788 the gross amount of trade had not exceeded £40,000, but by the energy of the partners it reached more than three times that amount before the end of the century—a wonderful showing for those days.

‘The Lords of the lakes and forests,’ as Washington Irving has called them, were a remarkable body of men, and their praises have been sung by many authors. They were ‘great as financiers, marvellous as explorers, facile as traders, brave in spirit, firm and yet tactful in their management of the Indians, and except during the short period from 1800 to 1804 anxious for the welfare of the Red Man’; the story of their exploits makes fascinating reading and throws much light on that far-famed West country which to-day chains the attention of the whole world.

In 1788 Fort Chipewyan, so called from the Indians who frequented the district, was established by Roderick McKenzie, and subsequently became the most important fort of the north country, being at the converging point of trade of the great water-courses of the North-West. Towards the end of 1792, Alexander McKenzie, the cousin of Roderick, set out from Fort Chipewyan, with the idea of proceeding as far up the Peace River as the furthest settlement, and remaining there in readiness to continue his journey in the following spring. Reaching the spot where he intended to stop for some months,

he made it his head-quarters, and in the following May he dispatched six canoes laden with furs back to Fort Chipewyan. Having done this, he set out on his tour of discovery along the Peace River ; a journey which lasted a whole summer, and which resulted in his finding what Verandrye had hoped to find years before, namely, ' La Grande Mer de l'Ouest,' the Pacific. Later, McKenzie left the West, and the book that he afterwards wrote, entitled *Voyage from Montreal through the Continent of North America*, had far-reaching effects, for it suggested for the first time the possibility of immigration from the British Isles as a new opening for the poor and unsuccessful British peasantry.

Among the readers of McKenzie's book was Thomas, Earl of Selkirk, a young Scottish nobleman, and it seems to have made a deep impression on him, for he, like some of those who preceded him, was a dreamer. Neither as fur trader nor as speculator did he come on the scene of the great drama that was being enacted in the far North-West, but rather with the simple desire to help others. He wished to found a colony, but though he succeeded in having the question referred to the then Colonial Secretary, nothing came of it at the time; not because of any unsuitableness of the country, but 'because the prejudices of the British people were so strong against emigration'.

In 1803 we hear of Lord Selkirk sending 600 people from the Highlands of Scotland to Canada, who all settled on Prince Edward Island. Years passed, and Selkirk, unable to obtain the assent

of the British Government to his great scheme of colonizing the interior of North America, at length determined to obtain possession of the territory he wanted for his plans through the agency of the Hudson's Bay Company. In 1810 he took the matter up seriously, and having satisfied himself that they were legally able to sell their land and to transfer the numerous rights bestowed by the original charter, he proceeded to obtain control of the stock of the Company, not with any idea of taking part in any way in the great fur trading competition then in progress, but for the purposes of his emigration scheme. By May 1811, just one hundred years ago, he had, it is said, acquired not less than £35,000 of the total stock amounting to £105,000. It was argued against him at the meetings held when he was striving hard to gain the land he needed for his colonization scheme, that 'in event of settlement, colonization is at all times unfavourable to the fur trade'. His proposal was to purchase a tract of land lying in the wide expanse of Rupert's Land, with the existence of which he had already become familiar when visiting Montreal in 1803; to settle within a limited time a large colony of people on the lands, and to assume the expense of transportation, of provision for the settlers, of government, of protection, and of quieting the Indian title to the lands.

His scheme met with cordial support in some quarters, though there was also a good deal of opposition, his most violent opponents being the 'Nor'-Westers', some of whom were in England at

the time. Disregarding obstacles, however, he carried out his plan of colonization, though his project has since been severely criticized; one of his own relatives fifty years later spoke of him as 'a remarkable man who had the misfortune to live before his time'. He was, however, one of the most heroic figures in the winning and colonization of the North-West, for after many vicissitudes and much hardship his colonists in 1816 reached the Red River, the outpost of that country which was to prove the Promised Land—the land of Selkirk's dreams.

The area of the new settlement was said to consist of 110,000 square miles on the Red and Assiniboine Rivers, one of the most fertile districts of North America. The name Assiniboia was given to it, and a government was organized for the embryo colony. Small crops were raised, and in the autumn of the following year, Lord Selkirk portioned out the land and gave to the people collectively, over and above their individual share, two lots, one for a church and one for a school. He further decreed that their new home—the first parish in Rupert's Land—should be called Kildonan, after their old township in the Valley of Helmsdale in Sutherlandshire, Scotland. Shortly afterwards he assembled the Indians—Swampy Crees, Ojibways, and Assiniboines—and to render the title of his colonists' land doubly secure made treaty with them (the object of the treaty being simply to do what has since been done all over the North-West Territories, namely, to extinguish the Indian title)

for Red River on condition of a quit rent of 100 lb. of tobacco.

The death of Lord Selkirk in France indirectly brought the two opposing fur companies, already commanded by royal proclamation to cease their quarrelling and to restore each other's property, still closer together, and in 1821 a reconciliation between them took place, the old Hudson's Bay name being retained. Thereafter there was peace between the fur companies of the Old and the New Worlds, and for practically half a century Rupert's Land was closed to all projects and all influx of population.

In 1835 a system of local government known as the Council of Assiniboia was established by the Hudson's Bay Company, with a President and Council and a Court of Law at Fort Garry (now known as Winnipeg), and three years later the Company were granted the sole right of trading in furs for a period of twenty-one years. Subsequently so much trouble and resentment was caused by the stringent measures adopted by the Company in conserving their monopoly in fur-trading, that in 1859 a parliamentary inquiry was instituted to investigate every branch of their operations; the result being that the Company announced that they would willingly remit the burden of governing their enormous territory if adequate return were made to them for their possessory rights. These rights had been granted to them over Rupert's Land and the territory of the Bay by the original charter from King Charles II; over Vancouver Island

by a special grant of 1849; and over all the Indian territory between the Bay and Vancouver Island by the licence of 1821, when their own charter rights had been merged with the Nor'-Westers' rights and a licence for exclusive trading had been granted to them for twenty-one years. The licence so given was renewed in 1838 for another twenty-one years. Almost immediately afterwards a syndicate of capitalists, calling themselves the International Financial Association, began to plan the buying out of the old Hudson's Bay Company, and in 1863 the deal was consummated, the Company changing hands for £1,500,000, and the stock being promptly resold to shareholders in a new Hudson's Bay Company with a still larger capital.

The confederation of all the Canadian colonies took place in 1867, and a clause in the British North America Act provided 'that it should be lawful to admit Rupert's Land and the North-West Territories into the Union'. Two years later, the new Hudson's Bay Company relinquished to the Dominion Government both its charter and its exclusive rights, though it by no means ceased to be a very potent factor in the making of Canada, and to this day its sales, held in London each January and March, are as important as ever, and still continue to attract buyers from all parts of the world.

Much has been said at various times about the marriages in the early fur-trading days of white men employed by the Hudson's Bay Company in the North-West with Indian women, but it should be remembered that there was often a deep and

potent reason for such marriages. The white trader was one amongst a thousand hostile natives. By marrying a daughter of a chief he obtained the protection of the entire tribe, a protection frequently sorely needed, especially when feuds ran riot as they often did among neighbouring tribes. From these unions sprang the half-breeds, and even yet there are still to be found, in far distant parts of what is now Alberta, famous Scotch and French names, though it is no longer possible for the Company to take care of every half-breed in the country as was their practice in the early days. Finally, to the everlasting credit of the Company must be set the fact that they conquered an empire from savagery with not one single massacre as the price, a record which no other organization in the world can boast.

In 1882, Alberta, until then still a part of the North-West Territories, was so named in honour of the visit of Lord Lorne and Her Royal Highness Princess Louise Alberta. In 1883 a transcontinental railroad connected the territory both with the east and the west, since which time development and settlement have been rapid and far-reaching. In 1905 it was created a province, and it now enjoys the full privileges of self-government. Of this government we shall speak in the next chapter.

CHAPTER II

CONSTITUTION, LAW, AND ORDER

THE bases of the constitution of Alberta are the British North America Act of 1867 passed by the Imperial House, with its several amending Acts, and the Alberta Act of 1905 passed by the Dominion Parliament. In the British North America Act, which set forth the terms of the confederation of the provinces of Ontario, Quebec, New Brunswick, and Nova Scotia, provision was made for the admission into the union, from time to time, of the then North-West Territories, of which the present province of Alberta formed part. Upon the granting of autonomy to parts of the North-West Territories, and the enactment, in the session of 1905, of the Alberta and Saskatchewan Acts, all the provincial provisions of the British North America Act, except those with respect to school lands and the public domain, were made to apply to Alberta as they applied to other provinces of Canada.

By the Provincial constitution the Legislative Assembly has complete control of all provincial institutions and offices except the office of the Lieutenant-Governor, who remains in power during the pleasure of the Governor-General of the Dominion, but who cannot be displaced within five years from his appointment except for cause assigned. Executive power is vested in the Lieutenant-Governor and in

the Executive Council formed by him of members of the Legislature, or of such persons as may, subsequent to the formation of a Government, obtain a seat in the Assembly and retain the confidence of that body. Legislative power is vested in the Assembly in the name of the King, and at its first session in 1906 the Public Service Act was passed, creating the following offices and departments :

1. The office of the Executive Council.

2. The Department of the Attorney-General. The Minister who presides over this department is a member of the Executive Council. He is the general law agent of the Crown ; to him belongs the supervision of the administration of justice within the province and the administration of public affairs according to law. Among numerous other matters he is charged with the conduct of the law governing the sale of intoxicating liquors ; the Lands Titles Offices in which all titles to land are registered and guaranteed by the Government ; the appointment of sheriffs, judicial officers, justices of the peace, coroners, commissioners for oaths, registrars, and notaries public ; and the supervision of the officers of the courts of law in the province.

3. The Department of the Provincial Secretary. The Provincial Secretary is also a member of the Executive Council. He is Keeper of the Seal of the Province, under which he issues all letters patent, commissions, and other documents, countersigning the same. He is the keeper of all the registers and archives of the province, and he has charge of certain provincial institutions.

4. The Department of the Treasury. The Provincial Treasurer, who directs this Department, has the management and control of the revenue and expenditure of the province. With the exception of certain special funds all revenues form the consolidated revenue fund. The Provincial Treasurer is likewise a member of the Executive Council.

5. The Department of Public Works. The Minister of this department controls the construction and maintenance of all public works in the province, surveys, roads, ferries, and all public buildings and real property, and issues maps and plans.

6. The Department of Agriculture. The Minister of Agriculture, a member of the Executive Council, has charge of vital statistics, public health, and hospitals, besides agriculture and manufacturing.

7. The Department of Education. This department controls public schools, normal training schools, and universities within the province, directing absolutely the course of studies followed in the normal and public schools, and, through a Board of Governors, the curriculum and administration of the provincial university. The Minister of Education also determines the amount of the provincial grant due to each school.

The Report of each of these Departments is prepared annually, and is laid upon the table of the Legislative Assembly.

8. The office of the Legislative Assembly. The chief officers of the Legislative Assembly are the Speaker and the Clerk of the House. The Speaker is the representative of the House in all its powers,

proceedings, and dignity, and exercises the same functions as the Speaker in the British House of Commons. The Clerk of the Assembly 'makes true entries, remembrances, and journals of things done and passed in the House', signs the addresses, votes of thanks, and orders of the House, endorses the Bills sent to the Lieutenant-Governor, has custody of all the records or other documents of the House, and is responsible for the conduct of the business of the House in the official department under his control. He assists the Speaker with regard to questions of order and procedure in the House. He also notifies the dates for receiving private and other Bills.

The judicial power of the province is vested in (a) a court of superior civil and criminal jurisdiction, namely the Supreme Court of Alberta, the judges of which hold the Courts of Assize, and (b) minor courts of civil and criminal jurisdiction, which are the District Courts. The Supreme Court consists of a Chief Justice and four puisne judges appointed by the Dominion Government, who hold office for life, unless impeached in Parliament.

The District Courts consist of a court in each of the judicial districts of the province (Athabasca, Edmonton, Wetaskiwin, Lethbridge, Calgary, and Macleod), presided over by a judge and a clerk. They have full jurisdiction in all matters which may be made the subject of claims for relief, debt, or damages where the amount involved does not exceed \$100; there is a special procedure for the summary recovery of small debts through the Clerk of the Court. District

Courts have power to grant probate of wills and the like, and are also courts of record for the trial, without a jury, of any person charged with a criminal offence, provided the person so charged consents. Court is held at least four times a year at various places in the several districts; the system of procedure, both in civil and criminal cases, conforms as nearly as possible to the English system, but no grand jury is summoned, and only in serious charges is the accused entitled to a jury, which is composed of six persons. Appeals from the trial courts (District Courts and the Supreme Court) are heard by the judges of the Supreme Court of Alberta sitting *in banco*.

The law courts of Alberta have the reputation of being efficient, fair, and expeditious. Technicalities are to a great extent ignored, and the Judicature Act, under which the courts proceed, leaves much to judicial discretion. Withal there is a proper decorum in the conduct of the business of the Court; judges wear black gowns when hearing cases, but no wigs, and the lawyers are required to show their respect for the judges by wearing gowns also. Though in some cases, particularly where the liberty of the subject is at stake, it may be questioned if the abolition of the jury, to such a large extent, is to be commended, it certainly has the effect of reducing the cost of litigation.

Broadly stated, laws that affect the people of Canada as a whole, such as those governing military and naval defence, banking, coinage, issue of paper money, trade, and commerce, postal service, and

criminal statutes, are enacted by the Dominion Parliament, the provinces being responsible only for such legislation as is of a local and private nature, and for the administration of the Criminal Code. Alberta seems to have made good use of her legislative powers; some of her statutes, particularly those affecting children, reveal the progressive spirit of her governing bodies, and the laws affecting the interests of working-men are equally advanced.

In the early days of settlement many of the men married Indian squaws, and as it was considered undesirable that these should inherit their husbands' property, the Disability Act was passed, under which, to within four or five years ago, all women were squaws in the eyes of the law, and none had any inherent right to a share in her husband's estate. Some public-spirited Albertan women, however, recently sought a remedy for this singular state of affairs (though the sex as a whole seems to have been little interested), and as a result an amended Bill has been passed, which protects a wife in the event of the death of her husband, who cannot now will his entire estate away. The wife, however, has no dower rights in the estate of her husband.

There is no general divorce in Canada, and only three of the provinces (Nova Scotia, New Brunswick, and British Columbia) have Divorce Courts. Elsewhere divorce is obtained by a special Act of Parliament, through a Bill presented in the Senate, and few parties are willing either to face the notoriety inseparable from such a proceeding or to pay the

cost thereof, which ranges from \$1,000 upwards. There was one divorce case from Alberta in 1906, and another in 1909; these are the sole instances since Alberta became a province.

The laws concerning neglected children are the outcome of a careful and intelligent study of the problem, conducted in the United States and in various provinces of Canada. The excellent Children's Protection Act is a modification of the statute of Ontario of the same name, with additions made as new phases of the question present themselves. Rescue work is carried on as much for the good of the State as for the sake of the child succoured, and the matter is conducted on a business basis. It is recognized that as the cost of catching, convicting, and maintaining a criminal is about \$10,000, and that as the average man will produce perhaps \$600 a year for twenty working years, the State loses from an economic point of view about \$22,000 for each criminal in its prisons. An agency which removes the child from evil environment and gives him a fair chance of making a success of his life, transforms a potential source of much loss into a State asset.

Permanent homes with foster-parents for about four hundred children have been found in the last three years, with complete success in a large number of cases, and with distinctly encouraging results in others. Shelters are maintained by the municipalities, under the direct supervision of the Department for Neglected Children, in Calgary, Edmonton, and Lethbridge. The difficulty of the work is enhanced by the circumstance that the children

represent many nationalities, languages, and religions, but the fact that it is highly successful is shown by the latest report of the superintendent, whose earnest enthusiasm is contagious. From his report it appears that out of 142 delinquents the subsequent history of 103 was satisfactory.

The province of Alberta at present returns seven members to the Dominion Parliament, but the redistribution of seats, consequent upon the increase of population, as shown by the 1911 census, may assign to Alberta a further five seats.

Since Alberta became a province the number of seats in its own Legislative Assembly has increased with the population from 25 to 41, and until the defeat in September, 1911, of the Liberal Government of Canada upon the 'Reciprocity' question, there were never more than two Conservative members in the Provincial House. By-elections held since then have, however, resulted in four additional Conservative gains.

The electoral laws of Alberta are very liberal, and provide what practically amounts to manhood suffrage. To vote for a member of the Dominion or Provincial Government it is necessary to be a native-born or a naturalized British subject, with twelve months' residence in Canada, and three months' residence in the Province, but in municipal elections men or women of any nationality, being property owners, can vote, even on such matters as taxation.

With the exception of a small force of police enrolled by the municipalities of such cities as

Edmonton, Calgary, and Lethbridge, the task of maintaining order and the King's peace in Alberta falls upon the exceedingly capable shoulders of the Royal North-West Mounted Police, a civil force of which the officers are magistrates and the rank-and-file constables. The heroic annals of this admirable body of men begin in 1873, when the whisky traders from Montana were busiest at their work of ruining the Indians of the North-West—with the active collaboration, it must be admitted, of their victims. To root out these elements of lawlessness (which, in what is now Alberta, was concentrated on the Bow and Belly Rivers) a force of 300 picked men was recruited in Toronto, sent by rail to Fargo, and marched to Dufferin, whence it set out upon a journey of 800 miles across the prairie into the heart of the Black-foot country. There they established Fort Macleod (now Macleod), expelled the whisky 'runners', pacified the various Indian tribes (who were at one only in their love of bad liquor and their hatred of white men), protected the surveyors of the Canadian Pacific Railway, and maintained order among the thousands of railway labourers. Since 1882 (when the force was increased to 500) they have been responsible for life and property in an area representing about one-fifth of the British Empire. Their total strength has never been greater than 1,100, but in the splendid history of the force there are abundant evidences of the prowess and skill of its individual members.

The suppression of the serious Riel rebellion, and the unparalleled feat of persuading Sitting Bull and

his 6,000 Sioux braves, after the massacre of General Custer and his troops, to return across the Albertan border and surrender to the United States authorities, are but two among hundreds of outstanding achievements to the credit of the 'Red-coat Riders of the Plains'. To them Alberta and the western provinces generally owe their immunity from Indian wars and from lynchings and train-robberies. For sheer efficiency they are the equal of the *rurales* of Mexico, with none of their ruthlessness, and for tact and good sense probably only the Royal Irish Constabulary can be compared with them.

The force is now reduced, in Alberta, to a strength of 260 men, and their work has lost much of the romance of the early days, though their duties remain as multifarious as ever, and are still as effectively performed. Quite lately one detachment has been at work opening up a pack trail from Edmonton to the Yukon, a distance of nearly a thousand miles, where English law was established and is still enforced by them; while a trail from the Peace River to the Yukon, several hundred miles in length—the work of a small detachment of twenty-nine police—is also nearing completion. As postmen, members of the force cover incredible distances. Recently one man was absent on a thousand-mile journey from the Yukon to Fort McPherson, on the McKenzie River, for close on three months. The Arctic Ocean and Hudson Bay in the north are patrolled as vigilantly as is the International Boundary to the south, distance being literally no object. It will be remembered how gallantly many of the

Mounted Police fought for the Empire during the South African War, while in London, during the Coronation festivities in June 1911, no representatives of the Overseas Dominions were more popular with the 'man in the street' than the contingent of Royal North-West Mounted Police, sent from Western Canada to pay their country's tribute of respect to King George V.

They are indeed men of many parts, and constitute probably the most unique police force in the world; while there are now no Indian troubles and only rarely a case of whisky peddling occurs on the reserves, so many things still continue to need their attention that they cannot yet be accused of having 'worked themselves out of a job'.

CHAPTER III

PHYSICAL CHARACTERISTICS

CANADA has been called, and truly called, the 'country of magnificent distances', and as far as her prairie provinces go, the statement is certainly as true of a part of the Dominion as it is of the whole, Alberta, the most western of them, being no exception to the rule. Stretching northward from the International Boundary, at the 49th parallel of north latitude, a line which in the eastern hemisphere passes through France a little north of Paris, to the 60th parallel, which, on the other side of the world, traverses the Shetland Islands, and eastward to longitude 110, called in the Canadian system of land surveys the 4th meridian, Alberta is a vast sloping plateau lying east of British Columbia and the Rocky Mountains, which form her western boundary line, her eastern boundary line separating her from Saskatchewan. Tilted on the Rocky Mountains and sloping down as it spreads north and east from a mean altitude of 4,000 feet above sea-level to about 2,000 feet, the province thus enclosed is one of the most extensive and richest in Canada, and contains at the present time the largest and most fertile areas of untouched agricultural land in America. Roughly speaking, it is more than twice the size of Great Britain and

Ireland, and larger than either France or Germany, or indeed than any other European country excepting Russia.

It consists mainly of undulating prairies furrowed by deep river valleys and rising here and there into hills of considerable size, but of no great elevation, though occasionally they reach a height of three or four thousand feet. The bulk of the Rocky Mountains lies in Alberta, contributing both beauty and grandeur to the province, and, according to an old Indian tradition, keeping guard over the plains below, and holding back the hostile spirits which lurk beyond. Gradually the serried ridges and steep eastern slopes of the main range of the Rockies give way to symmetrical and smoothly rounded foothills, a physical peculiarity which has caused Alberta to become known as 'the Foothill Province'. Its length is approximately 750 miles ; its maximum width 400 miles ; and its total area 253,540 square miles, representing 162,285,600 acres, of which some 1,510,400 are estimated to be under water, leaving 160,775,200 acres of dry land.

Alberta is particularly well watered, the snows and glaciers of the Rocky Mountains being the source of innumerable streams which eventually combine to form two of the greatest river systems in North America—the Saskatchewan, draining the centre and southern parts of the province, and the McKenzie the northern. The former consists of two main branches, the North and the South Saskatchewan, 760 and 865 miles long respectively. The North Saskatchewan, which, like many other rivers

in this province, cuts constantly through solid coal seams, has its origin in the north-western corner of Rocky Mountains Park, a short distance south of the 52nd parallel, and, flowing north and east, receives from the north the Brazeau, which traverses a region particularly rich in anthracite and bituminous coal-measures to be opened up this year by an extension of the Canadian Northern railway system from Edmonton, the Sturgeon, the Vermilion, and other tributaries, and from the south the Clearwater, the Battle, and several more streams of less importance. The South Saskatchewan is the main artery of an extensive system of rivers which rise in the mountains and foothills of the south-west, and of which the Old Man's, the Big and Little Bow, the Belly, the St. Mary's, the Waterton, and the Red Deer are the most considerable. The two Saskatchewanes unite almost in the centre of the province of the same name and flow into Lake Winnipeg, finally reaching Hudson Bay, 1,000 miles east of the Alberta boundary.

The McKenzie River system, draining an area of 679,000 square miles, is composed of the Peace River and the Athabasca. The source of the latter river is in the glaciers of the Rocky Mountains, close to the source of the North Saskatchewan. Taking a northerly course, and swollen by its principal tributaries, the McLeod, the Pembina, and the La Biche from the south and east, and by the Baptiste, the Little Slave, and the Pelican rivers from the north-west, it flows into Lake Athabasca in the extreme north-east of Alberta. The Peace River, which is more



THE ATHABASCA RIVER, CANADIAN ROCKY MOUNTAINS

than 1,000 miles long, and is formed by the confluence in northern British Columbia of the Finlay and Parsnip Rivers, enters Alberta through the Peace River Pass, and flows east, north and east into Lake Athabasca, receiving from the south-west among other tributaries, the Wapiti, the Simonette, the Little Smoky and Big Smoky, the Loon, and the Red Rivers.

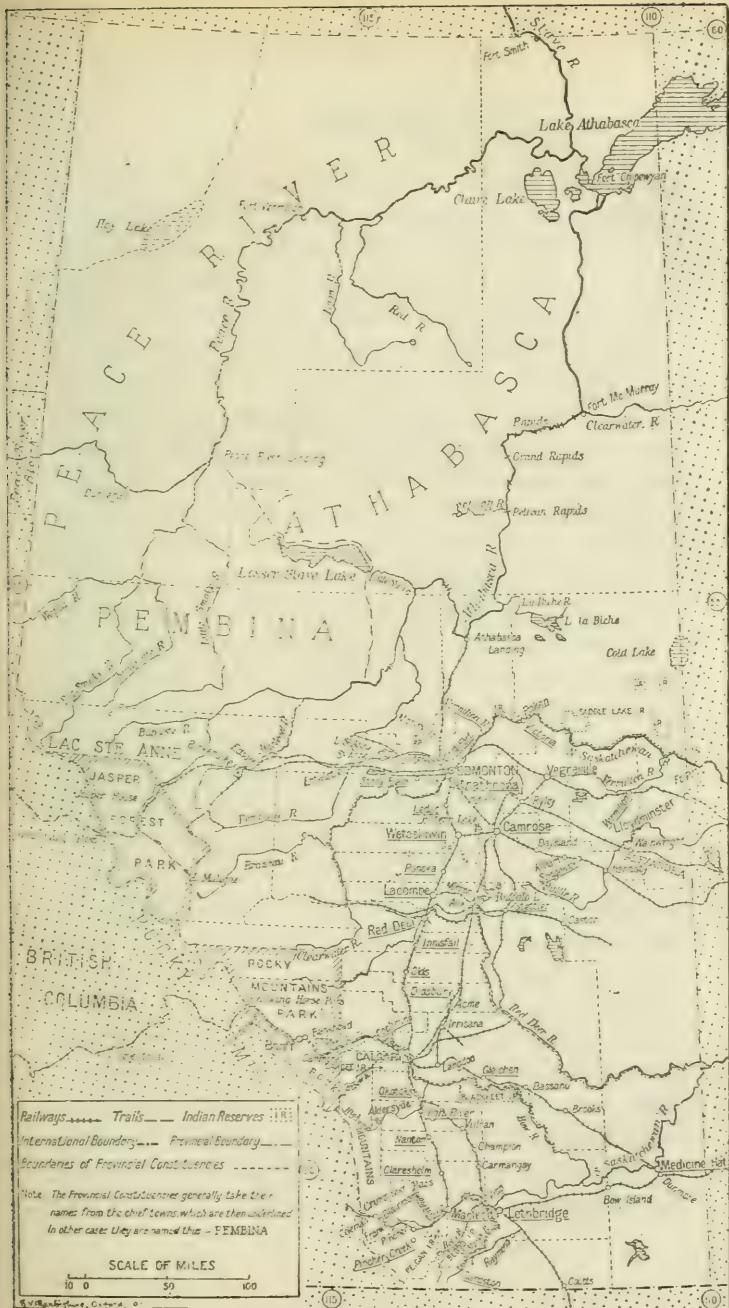
This remarkable river, with its steep, clear-cut banks, sometimes 1,200 feet in height, and its great, placid breadth of about three miles, exercises a strange fascination over all who have seen it, and is expected to take its place one day among the great and useful rivers of the world. W. Fletcher Bredin, M.P.P., in his evidence given during a very interesting investigation held at Ottawa a few years ago, stated that from the foot of the Rockies for about 800 miles along the Peace, a fertile and most excellent agricultural region exists, the far-famed Peace River Valley, extending for at least seventy-five miles on either side of the Peace River, composed of alternating prairie and light woodland on the south bank and open prairie on the north. The soil on the wooded land is stated to be equally as good as on the open stretches; the bunch grass, everywhere growing luxuriantly in a wild state, proves beyond doubt that the land is well fitted for successful agricultural development. The Peace and the Athabasca flow out of Lake Athabasca and into Great Slave Lake as the Slave River, which in its turn issues from the latter lake as the McKenzie, and flows into the Arctic Ocean. This immense

chain of watery highways has a total length of 2,800 miles, and is navigable for over 1,000 miles.

We have merely named the principal water-courses of the province and their main affluents ; much space would be required to convey an impression of the beauty of the varied scenery through which they flow, and that, to a large extent, they create. Their great value lies in the fact that they leave no large tract of land unwatered, except, perhaps, in the extreme north-west, a district only partially surveyed ; but they are scarcely less important because of the hydraulic power that they represent, and some account must now be given of their possibilities in this direction.

South of Fort McMurray the bed of the great Athabasca River breaks into a series of rapids from which, according to one authority, nearly a quarter of a million horse-power can be derived. The Grand Rapids on this river, a magnificent spectacle, could, in their descent of 60 feet in a quarter of a mile, develop at least 60,000 h.p. in an ordinary season.¹ Near Edmonton, the capital city, the Rocky Rapids on the North Saskatchewan have an estimated capacity of 25,000 h.p. On the Slave River, in the north, there are sixteen miles of rapids with an aggregate fall of about 250 feet, capable of supplying a million horse-power, or even more. The Vermilion Falls, the one obstruction within the province to

* ¹ Generally speaking, it is only in summer, when the snows and glaciers of the Rocky Mountains are melting, that the volume of water carried by the rivers is sufficient to operate hydraulic plants.



navigation on the Peace River, have a descent of over 20 feet in less than two miles, and could develop about one hundred thousand horse-power, and many large streams, such as the Clearwater, Brazeau, Belly, Bighorn, Elbow, Highwood, and others, could be made to furnish energy at no great cost, the Clearwater in particular being easy to harness. On the Blindman River, at its confluence with the Red Deer River, a municipal undertaking supplies light and power to the city of Lacombe, ten miles away, and at the Horseshoe Falls on the Bow River a power plant with a capacity of some 5,000 h.p. is rapidly approaching completion.

The lakes of Alberta are especially remarkable for their number and distribution, though some, like Lake Louise and Lake Maligne, are, in addition, beauty spots of rare charm. They occur in every part of the province, and at least twenty-five could be mentioned of which the area exceeds twenty square miles. Lake Athabasca is by far the largest, covering a surface of 2,850 square miles, but only about one-third of this area lies within the Alberta boundary. Lesser Slave (480 square miles) and Claire Lake (405) are next in point of extent, and Cold Lake and Lac La Biche are each over 100 square miles in superficial area.

One of the most interesting of the smaller lakes is known as Buffalo Lake, to which in the old days all roads and trails seemed to lead. Twenty-two miles long, and nine miles wide, it was, until civilization began to make itself felt, the great rendezvous of the Indian warriors and hunters who favoured this

spot for their most elaborate pow-wows. From here they would branch off on their long hunting and fishing expeditions, only to return for fresh gourmandizing and the recital of the stories of their intertribal strife and adventures. With the coming of the fur traders and explorers, the old Battleford to Buffalo Lake trail was instituted, having Hudson Bay trading-posts along its course, and thereafter, following the hunters and trappers, came the earliest white settlers, who were likewise attracted by the facilities for communication which the lake afforded, and by the pasturage for their horses which was especially abundant along the lake shore. As recently as July 1911, what is claimed to be the 'best new town of the year' in Western Canada was located at the west end of Buffalo Lake. Known as Mirror, after a well-known London newspaper of that name, and destined to be a divisional point on the Grand Trunk Pacific line between Edmonton and Calgary, it is expected that this town will become extremely popular as a pleasure resort. The greater portion of the lake on which it is situated has a fine, sandy, shelving beach, and when the Fisheries Commission appointed by the Dominion Government to gather evidence in relation to the conservation of natural resources visited the lake during their recent trip to Alberta, they gave it as their opinion that, besides the pickerel with which the lake abounds, black bass and lake trout could be successfully introduced and made to thrive in its waters.

An abundance of fish is found in practically all of the rivers and lakes in the province, the best

edible varieties being the whitefish, lake and mountain trout, pike, pickerel, sturgeon, and ling. Game and birds of all kinds also abound, the principal being moose, elk, deer, antelope, bear (black and cinnamon), lynx, coyote, wolf (timber), fox, wolverine, otter, beaver, marten, swan, geese, ducks, partridge, ptarmigan, gulls, crows, robins, kingfishers, loons, and snipe. The taking of game and the destruction of wild life is restricted by a provincial game law, as is told in the chapter on Sport and Recreation.

The climate of Alberta is, in general, characterized by a dry and clear atmosphere, a comparatively small rainfall, and so much bright sunshine, even in the short days of winter, as to have earned for at least one part of the province the title of 'Sunny Southern Alberta'. The climate is, moreover, less changeable than that of the Atlantic coast. Winter, setting in between the middle of November and the middle of December, prevails without a break until the middle of March, and when spring has commenced there is no return to wintry conditions. May, June, July, and part of August are the wettest months, with rainfalls averaging 2.80, 3.53, 2.28, and 2.17 inches respectively. The rain is usually most copious when most needed, ceasing just when the harvest is due. Records taken over a period of seven years show, for the southern half of the province, a mean annual precipitation of 15.4 inches. This is undoubtedly a light rainfall, but that it is sufficient from the agriculturist's point of view is proved by his crops and is explained by the fact that

practically all the year's rain falls during the growing season, and is held by the clay subsoil which occurs nearly everywhere in Alberta.

The summer is hot, the temperature sometimes rising to 90° in the shade during the day, but the nights are always cool, even during the warmest weather. Strangely enough, the summer heat is very evenly distributed over the entire province. As far north as Fort Vermilion (lat. $58^{\circ} 29'$) the mean summer temperature is 61° , the same as at Edmonton (lat. $53^{\circ} 33'$). At Dunvegan (lat. $55^{\circ} 56'$) and at Macleod (lat. $49^{\circ} 44'$) the average is 60° , and at Cardston (lat. $49^{\circ} 12'$) and Calgary (lat. $51^{\circ} 2'$) it is 59° . At midsummer there are eighteen hours of sunshine daily, a circumstance which greatly favours the rapid growth of vegetation.

In the latter half of August and throughout September dry, sunny weather, which is extremely invigorating, almost invariably prevails. Autumn, generally dry and fine, is frequently prolonged into November, delaying the approach of winter, which, when it does arrive, is by no means excessively rigorous. It is true that both in the north and in the south the temperature not infrequently falls considerably below zero for short periods, but the clear air and bright sunshine mitigate the cold to a remarkable extent. There are no rains in the winter. In the north of the province snow falls to depths of from 6 to 18 inches, and remains until spring; in the south the snow that falls rarely exceeds a depth of 9 inches and does not last long.

The climate is at all seasons healthful and stimu-

lating, and it may be said to be distinctly superior to its latitude. Chief among the agencies that influence it is the enormous plateau of high and arid land, half a million square miles in extent, lying south of the International Boundary, which becomes so heated during the summer that it tempers the climate of the whole region northwards, as far as the Arctic Circle. This plateau, of which Alberta is a continuation, has an elevation of 4,000 feet at the International Boundary and less than 1,000 feet seven hundred miles further north, a reduction in altitude that has an effect equal to that of several hundred miles of latitude. Another factor of great importance is the phenomenon known as the 'Chinooks'—warm winds that blow from the Rocky Mountains and occur along the whole range as far north as the Peace River. They are caused by the condensation of the air and the compression of the moisture as the currents descend from the mountain-tops, liberating heat, and in the winter they melt the snow with marvellous rapidity in those regions over which they exert an influence, making it possible for horses and cattle not only to live but even to thrive on the open range all the winter. One writer in describing them says: 'The climate makes the country, and the Chinook makes the climate, the warm Chinook filtering through the Rockies full of fragrance of the far-off sea, bearing beneficent moisture on its wings, and pregnant with potential harvests.' It is no unusual thing for a Chinook wind to cause a rise in temperature of as much as 60° in a few hours.

In his annual report (1909) the Director of the Meteorological Service of Canada says :

It is doubtful whether there is any other region of the globe where the distribution of atmospheric pressure has so pronounced an effect on weather conditions as in Southern Alberta, and this is because a barometric gradient for northerly winds in winter means the transference of air from continental high latitudes across this country, while a westerly gradient means the flow of mild ocean air still further raised in temperature by the Chinook effect.

Alberta's natural resources are many and varied, and in view of the fact that north of the 56th parallel the province is virtually unprospected and south of it only partially so, it seems probable that the greater part of its wealth is as yet unrevealed. But sufficient is known of the southern half to establish the fame of Alberta as one of the richest districts, mineralogically, in the North American continent. Geological surveys have shown that practically the whole province south of Lesser Slave Lake is one vast coal-field, in seams of varying thickness, and it is believed by many scientists that the formation continues north. On the eastern slopes of the Rocky Mountains anthracite coal of good quality is being mined, and as far north as the Yellowhead Pass, a little south of latitude 53°, outcrops of anthracite have been discovered. Lignite, also of good grade, occurs on the banks of many of the southern rivers and of the Smoky and Peace Rivers in the north. West of Calgary, and especially

in the vicinity of the Crow's Nest Pass, there are numerous large collieries, and in several parts of Southern Alberta many of the farmers and ranchers obtain their fuel from mines on their own land. The actual extraction of coal is dealt with in the chapter on Mining; to indicate its existence and extent it is sufficient to state that underneath her wheat-fields Alberta can lay claim to inexhaustible and immeasurable fields of coal. Thus she can, with truth, consider herself literally a 'double-decked' province—with wheat above and coal beneath her immense areas of land, to say nothing of her other possibilities.

Of combustible material, indeed, Alberta has beneath her soil a store that occasionally proves embarrassing, as when, in boring for petroleum, a flow of natural gas is released which cannot be capped, and whose roar can be heard at a distance of two or three miles. Gas is escaping continually along the banks of the Athabasca, while it is well known that the town of Medicine Hat, in the south-east, has been lighted and heated by natural gas for several years. At Bow Island and in other districts west of Medicine Hat wells have been sunk with success, and at a test-hole put down by the Geological Survey at Pelican Rapids, 180 miles north of Edmonton, a strong flow was encountered. These discoveries point to a very wide distribution and an almost unlimited supply of illuminants and fuel.

It seems evident also that Alberta is rich in petroleum. 'The cretaceous rocks that underlie

almost the whole of the province have as their basal member, where exposed on the plains, the Dakota sandstone, a porous rock and a suitable reservoir for oil. This, in turn, along its exposed (northern and eastern) borders at least, rests upon the Devonian, and is overlaid by shales that would form an impervious cover which might retain any oil that found its way into the Dakota sands.' Along the Athabasca River and in many other northern districts these sands are exposed, and are found to be heavily charged with tar, which represents the residuum of petroleum that has escaped to the air and hardened. These tar sands, and also the seepages of oil which occur practically throughout Alberta, indicate the former existence and possibly the actual presence of oil in large quantities; it is probable, however, that many of the deposits are not commercially valuable, as the oil horizon frequently lies as deep as 4,000 feet (at Calgary, for instance) and the soft shales of the upper cretaceous rocks make boring difficult. In the Pincher Creek district of South-Western Alberta several companies have wells, varying in depth from 1,000 to 1,400 feet, yielding good oil with a paraffin base and free from sulphur, while at Pelican Rapids, mentioned above, oil was struck just below the veins of gas, at a depth of 820 feet. This seems to be the most favourable locality for prospecting.

Whether or not the enormous outcrops of tar sand on the Athabasca River, in the vicinity of Fort McMurray, can be utilized commercially depends chiefly upon the extension of railway communication.

Analyses of this substance show that it is composed of 81.73 per cent. of silicious sands, 5.85 per cent. of water, mechanically mixed, and 12.42 of pure bitumen, or mineral tar. In its native state, or with very little refining, it may be used for paving, roofing, and other purposes. Of itself it provides two of the essentials for a glass-making industry—the fuel and the silica—for tar sand burns freely if supplied with sufficient air, and the sands consist of grains of pure vitreous quartz, suitable for the manufacture of fine white glass. It has also been found possible to extract about 70 per cent. of the bitumen by boiling the pitchy sands in water.

There seems to be little doubt of the value of this mineral, and any industry of which it can be made the basis could be conducted on an immense scale, for the area of the Athabasca beds has been estimated at 1,000 square miles with an average thickness of 150 feet. It is very easily excavated, being simply dug out of the banks.

As far as is yet known, gold (placer gold) in paying quantities occurs only in the sands of the North Saskatchewan, from Edmonton eastwards into the province of Saskatchewan, but it would seem that most of the mountain streams carry gold to some extent. As long ago as 1871 a party of young men left Winnipeg for Edmonton—then an isolated Hudson's Bay post on the North Saskatchewan—attracted to that then distant quarter of the north-west by the reports of the rich placer gold diggings which were known to exist along the banks, while as recently as six or seven years ago enough gold was still obtained in washing

out the gravel used for making concrete by a company in Edmonton to make it quite a remunerative by-industry to the people interested in the gravel dredging. This gold-washing process is still to be seen in operation on the river banks of the capital city of the province.

Near Fort Smith, on the northern frontier, there is a very extensive bed of salt on the surface, and further south an oil-prospecting concern penetrated, during boring operations, a layer of rock-salt fifty feet in thickness.

Gypsum is found in large cliffs in several localities in the extreme north-east, and extensive beds of limestone rock occur at Calgary and Bankhead as well as at Red Deer. Beds of excellent clay for brick-making exist in many parts of the province.

Timber is plentiful throughout Alberta, except in the extreme north and the south-east, but nowhere does it attain any very great size. The eastern slopes of the Rocky Mountains are well covered with useful timber, and for some distance east the banks of the streams are thickly fringed with spruce, pine, poplar, willow, and other species. Practically the whole of Central Alberta consists of park-like country, partially wooded, aspen appearing to predominate. Between the Rocky Mountains and the prairie the white spruce is the commonest tree, but in the country north of the Saskatchewan, Athabasca, and Peace Rivers aspens and balsam poplar are more in evidence. The poplar of the north is very fine, about a foot in diameter at the stump and growing very straight for about 18 feet

in height. Tamarack (larch), white and black spruce, jack-pine, birch, and white poplar are all found in the McKenzie basin.

The wood of the white spruce is excellent, both as lumber and for pulp manufacture, being light, soft, and straight-grained. The black spruce, which grows usually in low-lying and marshy places, has similar qualities, but is smaller in girth and of slower growth. Jackpine wood is also light and soft, with a close grain and a dark colour, almost brown. It is used as lumber, but more often for railway ties and as fuel; for pulp it is inferior in fibre to the spruce. The wood of the tamarack is hard, strong, and heavy, light-brown in colour, coarse-grained and durable; it is used for posts and railway ties, but is not, as a rule, sawn into lumber. The balsam poplar (*P. balsamifera*) has light-brown and coarse-grained timber, not very strong and generally used as fuel. It is not so valuable as the white poplar, or aspen (*P. tremuloides*), which, next to the spruce, is the best pulp-wood, and is also cut into lumber for inside woodwork. Being a widely distributed tree, of quick growth, it is largely used for fuel.

The wood of the birch, which is light, tough, hard, and very close-grained, is used for turned work; its short and brittle fibre makes it unsuitable for pulp manufacturing purposes. The willow, of which there are many species, is of little value except for fence-posts and as fuel. Like the alder, also used mainly for fuel, it does not occur in forests, but is common along river banks.

The grasses natural to the different parts of the

province are noticeably numerous, and their variety and succession are such that at no time of the year does the country suffer from an absence of nutritious pasturage for live stock. Twenty-five years ago it was thought that the Union Pacific Railroad traversed the finest grass country in the world, but the settling of Alberta has carried the prize to the regions opened up in the north-west of Canada by the Canadian Pacific, the Grand Trunk Pacific, and the Canadian Northern Railway Companies. Throughout the partially wooded districts, or 'the park country', as it is frequently called, and in the coulees, ravines, and river bottoms, the ground is overgrown with wild vetches and wild peas, of which upwards of a hundred varieties have already been identified. Many of these cling to the undergrowth, forming a network of the very closest herbage. The clear, dry air of the autumn desiccates and cures these grasses, forming hay of a high nutritive value, and the fact that it clings to the bushes makes it possible for cattle to feed on it, even though the snow be tolerably deep. In addition to the grasses, there are myriads of wild flowers and small fruits, the prairie roses in particular, which grow on low bushes about a foot or so high, being the loveliest things of wonder imaginable, varying in colour from purest white to deepest crimson, and having a wild, fresh fragrance impossible to describe. During the autumn many families are able to gather wild fruit in sufficient quantities to keep them supplied for months.

But when all that can be said has been said of

Alberta, her greatest and most important asset is her soil, of the character of which, Professor Tanner, the celebrated English agriculturist and chemist, has written : ' Although we have hitherto considered the black earth of Central Russia the richest in the world, that land has now to yield its distinguished position to the rich, deep, black soil of Western Canada.' Professor Thomas Shaw, of Montana, the eminent authority on soil and climate, has also given it as his opinion that the first foot of soil in the three provinces of Manitoba, Saskatchewan, and Alberta is their greatest natural heritage, and is worth more than all the mines from Alaska to Mexico, or all the forests from the United States boundary to the Arctic Sea, vast as these are. Next in value to this heritage he places the three feet of soil which lie underneath the first.

Of this soil the chapter on Land will treat.

CHAPTER IV

POPULATION, IMMIGRATION, LABOUR

TEN years ago a careful computation assigned to that part of the North-West Territories which is now Alberta a population of 73,022 individuals. The chief towns were small indeed : Edmonton could count but 2,626 souls, Calgary 4,097, Lethbridge 2,072, Medicine Hat 1,570, and Strathcona 550. Now the census of 1911 returns the population of the province at 372,919, or more than five times as much as in 1901, while Edmonton, with which Strathcona, as is told in Chapter IX, is now amalgamated, has 30,462 inhabitants, Calgary 43,736, Lethbridge 8,048, and Medicine Hat 5,572.

It is unnecessary to state that this increment is mainly due to the influx of immigration ; from July 1, 1900, to March 31, 1911, the number of immigrants entering Canada and destined for Alberta was approximately 270,000, and for the fiscal year ending on the latter date the total number was 44,794, constituting a record in the history of the province. It may not be generally known how exceedingly cosmopolitan in character is the crowd of applicants for tracts of the free land of Alberta. In the total of 18,013 homestead entries¹ made

¹ It is calculated that on an average two persons go to each homestead.

during 1910, no less than 27 nationalities were represented ; 6,367 were from Americans, 3,248 were from Canadians of other provinces, 1,032 from Albertans, 283 from Canadians returned from the United States, 2,348 from Englishmen, 553 from Scotsmen, and 225 from Irishmen. These, with 2 Newfoundlanders, 6 Australians, and 5 New Zealanders, formed the English-speaking portion of the applicants ; among the others were 898 Austro-Hungarians, 665 Russians, 366 Germans, 421 Swedes, 406 Norwegians, 98 Hollanders, 90 Danes, 86 French, 51 Belgians, 38 Swiss, 26 Roumanians, 18 Italians, and 12 Icelanders. China, Persia, Chile, Spain, and Turkey each provided a representative, Japan 2, and Greece 3.

Such is the ethnological composition of the immigration, past and present, into Alberta ; every continent and almost every country has had some share in the human up-building of this new Land of the West. Happily, the types and qualities of these units are rapidly becoming welded into one homogeneous whole, in which the spirit that animates all is the spirit of progress. The days of the pioneer are almost over—for the trail has already been blazed—but the real West is still the land of the toiler and the tiller, a country of beginnings, though paradoxically, remembering the progress already made in city and town and village, also a country of achievements. Travelling across the prairies, whether by 'rig', by motor-car, or by train, you come continually to new and growing centres of population. You pass a small station, some settlers'

shacks, a real estate office, a store, a 'hotel'—and you are quite sure that, should a return journey be made within a few months, there would be found a full-fledged town, with its broad main street, its school house, its church, its banking facilities, even its telephones, all complete, so swiftly does development follow settlement in the progressive West.

Achievements of this nature argue either that the character of the immigration into Alberta has been consistently good, or that there is some quality in the Albertan atmosphere which induces men and women from other lands to put forth the best of their energies and faculties. For the latter contention there is much to be said, but let us see to what extent the province has been influenced by the qualities that the foreign-bred Albertans have brought with them.

The English-speaking element fortunately predominates in Alberta. Most of the original ranchers were British or American, of markedly differing types; their occupation has practically gone, but they themselves remain—as farmers. The American rancher arrived with a more comprehensive knowledge of the business; he knew cattle and horses as wild animals, whereas the Britisher had been accustomed to regard them as domestic creatures. The American was also more familiar with life on the prairies, though the man from the 'Old Country' took to the business of ranching quite easily. It seemed to appeal to him, and to his outdoor instincts, and he acquired the necessary knowledge rapidly, proving himself an apt pupil. He came, moreover,

with more pronounced social instincts, and his presence brought with it to Western Canada a degree of law and order superior to that which had previously prevailed in the ranching country of the Western States. Cattle 'rustling', and the crime of lynching which punished it, have never been known in Western Canada, thanks largely to the early settler and his power of making his ideas felt and observed. To-day he is to be found, time and time again, holding a prominent post in bank, warehouse, office, store, or works, while many have become leading agriculturists and stockbreeders, in spite of the fact that fifteen or twenty years ago they were to all intents and purposes totally inexperienced. Summing up concerning the British element, it may be said that it imported into the community steadiness and thoroughness rather than 'hustle', and a love of law and order.

That the Americans are succeeding in Western Canada is proved by the increasing numbers who are selling their lands in their own country, and taking up holdings in the Canadian Provinces, and to the American farmers, especially those who came from the Western States of the Union, belongs the credit of being the pioneers in successful farming on a large scale on the open prairies of Canada. Many of them were rovers by nature, men who as soon as they had acquired the title to a piece of land could not resist the temptation to sell out and move on—but not before they had done their share in developing the country, for they had made an opening where the man of more permanent habits could

establish himself and found a home, no matter how small.

In contrast to the American farmer from the West were the Americans from the Central States and the Canadians from Eastern Canada—men more given to mixed farming, and being more careful and cautious in all their work. Their contribution lay largely in developing the brushy sections of the country, which were less adapted to exclusive grain raising on a large scale, and which involved a safer kind of husbandry, tending more towards building up communities of permanent citizens. One thing that might be urged against the American farmer who first came on to the prairies to farm on a large scale is that his intention was not so much to make a home as to 'get rich quick' and to return to his own country with the proceeds of his efforts. Many, of course, departed from their original intention, and remained in the country which had yielded them the success they had hoped for, but the trend of their work did not have permanent settlement in view, whereas the men who settled in the brushy parts of the country did so deliberately, devoting themselves to mixed farming, and they identified themselves with the country to a much greater degree than did the men who settled on the open prairies.

The American, however, whatever his natal State or his occupation, has been, and is, a valuable constituent of the population, bringing with him the restless energy, the quick perception and the unbounded optimism which seem to characterize his countrymen wherever they find themselves—and

taking away, it must be added, many a snug fortune which should have circulated in the province.

Americans and British, then, are the basis of the ethnological structure of Alberta. Next in point of numerical importance are the Austro-Hungarians, intelligent people as a rule, and mighty workers, peaceable and law-abiding, and above all satisfied with the conditions of life in the province, and permanently settled there. Thrift and steadiness have been their salient good qualities, and many of them, from being extremely poor, have grown wealthy, but being clannish they have not influenced the national life in proportion to their numbers.

Perhaps the finest element *physically* is the Swedish and Norwegian, and their moral characteristics are also admirable. It is difficult to select any outstanding trait, but probably domesticity is their strongest point. They are mostly of a religious turn of mind, and they have from the first perceived the value of education for their children. Certainly they have been an influence for good in the province.

The Russians in Alberta seem to be endowed with tremendous energy, but to reveal it only in flashes. Though not improvident they cannot be said to be especially distinguished for thrift, but they are not easily daunted by reverses, and contribute as much as any other race to the stock of optimism to be found in the province. The Germans have brought, as their contribution, a knack of making the soil produce rather more than it does in other hands; they are very thrifty people, and their innate

business capacity has brought many of them to the front. Intellectually they rank with the British and American elements.

None of the other races is yet sufficiently strong in numbers to have made its characteristics felt to any marked extent. It may be desirable that some of the nations which figure in the immigration returns should not be too strongly represented in the population, but that is a subject which need not be discussed here. That the class of immigration, independent of nationality, is good is proved by the rarity of serious crime in the province, and is due to the immigration laws of Canada, which are framed to exclude 'undesirables'.

The difficulty of dealing with such an agglomeration of nationalities, tongues, and creeds as pours into Alberta year by year will be obvious, and great praise is due to the authorities for the manner in which they perform their task. At each large centre are immigration halls, wherein such as require it are provided with free lodging for ten days, after which they are expected to move to their homesteads or to their situations, and to make room for the next arrivals. Occasionally the rush is so great that tents have to be erected in the vicinity of the halls to accommodate the overflow, and this is but the preface to a series of problems which arise when the immigrants have settled down in their new homes. How many of them have been solved, and how many are in course of solution, will transpire elsewhere in this book.

For its sympathetic treatment of the former

owners of the soil—the Indians—the Government deserves all praise ; elsewhere they have been either exterminated or hopelessly demoralized, but in Alberta, and of course in Canada generally, they cannot even be regarded as a moribund race. In 1910 there were, it is estimated, 8,934 treaty Indians in Alberta, living on 'reserves' scattered throughout the province, and the total value of their real and personal property was calculated at the respectable sum of \$9,112,734. Though indisposed to agricultural labour they owned 5,000 acres of land under wheat, oats, barley, potatoes, and other crops, from which they produced 83,672 bushels of grain and roots and 18,581 tons of hay, worth in all \$110,407. They sold beef to the value of \$77,221, and earned by labour \$70,056, by fishing \$3,612, and by hunting and trapping \$30,443. Indian lands cannot be leased or sold without their consent, nor for the benefit of any but themselves, and from land rentals they derived a sum of \$13,713. Their aggregate income from these and other sources was, in 1910, \$390,331.

Two small communities own a steam-plough apiece ; one chief has for some years worked a coal-mine to considerable advantage, and there are many other instances of business ability among these wards of the nation. The Government provides them with live stock, and lends them bulls and stallions wherewith to form herds. Every man, woman, and child receives an annuity of \$5 ; every chief and every headman or councillor has a salary of \$25 or \$15 respectively. Seed and agricultural implements

are bought for them when necessary, they are assisted to erect grist and saw mills, and clothing is given them every three years.

'Supplies for the destitute' is a large item in the Indian expenditure, for many of them are sunk in indolence and apathy, the result, in most cases, of a passion for bad whisky. Medical attendance and medicine also cost a considerable sum annually; Indians seem to be especially liable to tuberculosis in various forms.

All things considered, the Indians of Alberta are very well treated, and there are many whose natural intelligence and general conduct entitle them to respect, and many of them have become industrious, law-abiding subjects. There is much to admire in the Indian character, and in Alberta at least, thanks to the wise and essentially humane policy of the Dominion Government, the 'noble red man' is not yet extinct.

Of the occupations, trades, and professions of the people of Alberta it is impossible to give any accurate details, for no figures later than 1906 are available, and the detailed information collected by this year's census has not yet been published. The conditions in the last five years have changed entirely. Those engaged exclusively in agriculture, however, may be taken as representing approximately 60 per cent. of the population, leaving 40 per cent. (there is no leisured class in Alberta) occupied in the manufacturing industries, mining, transport, the liberal professions, and other pursuits.

Labour in Alberta is a very thorny subject. Con-

ditions are exceedingly difficult to adjust ; there is some non-employment in the spring of each year, purely temporary in its character, however, while at harvest-time the supply of labour, experienced and inexperienced, is woefully deficient. It is difficult to see how, in the circumstances, this can be remedied, but a better system of Labour Exchanges, under the management of the Government, would be of much assistance ; at present labour bureaux in the West, with the exception of those attached to immigration halls, are private concerns. Trades unionism is all-powerful in Alberta, controlling fully 90 per cent. of the skilled labour. More than one union is international in character, with local branches, and many British unions are represented.

With labour exceedingly well organized it follows that wages generally are high. In the building trade they average during the building season 50 cents an hour for an eight-hour day, bricklayers and masons earning, since their strike in June 1911, 67½ cents an hour. Skilled mechanics are paid at the same rate. Carpenters command a minimum wage of 45 cents an hour ; in the lumbering and railway construction camps the men are paid about \$30 a month, with board, and street railwaymen earn from 25 to 32½ cents an hour, according to length of service. The printing trade is the best paid ; linotype operators average from \$28 to \$31 a week, working eight hours a day, with a half-holiday on Saturday, while press-feeders receive from \$19 to \$21 a week. The telephone men have an agreement with the Government, whereby they earn from 75 cents an hour (for

ordinary wiremen), to \$1.25 an hour (for foremen), working nine hours a day. Electricians recently went on strike for a few days, and succeeded in obtaining a minimum rate of 50 cents an hour. Plumbers and steam fitters are paid 60 cents an hour, and metal workers earn about 45 cents. These figures are the average rates in towns and cities, where they do not vary to any great extent; as compared with those obtaining in country districts, however, there is often a wide difference.

In all these trades there is usually a good demand for skilled labour, but, on the other hand, unskilled labour is frequently at a discount. A moderately skilful mechanic, especially if he be a Britisher, can easily secure a permanent berth, but he must be prepared to adopt Western methods of work. Occasionally unemployment is due to accidental causes, such as when, in June of the present year, the building trade came to a standstill in the Edmonton district through a shortage of cement. More generally, however, it is brought about by strikes—not necessarily for better pay, for the cooks of Calgary recently threatened to cease work because yellow labour was employed at some of the hotels, and the carpenters at work on a certain block of buildings in the same city threw down their tools for a similar reason.

With respect to farm labour the situation is unsatisfactory from the point of view both of employer and employed. The system of obtaining help for the summer months only is discouraged by the Government because it offers no encouragement

to the people so engaged to devote themselves to this class of labour, and as a consequence they tend to move about from place to place. It would seem as if the farmer could with actual advantage to himself engage his labour for a full year, but the question cannot be entered into here. The key to the situation is apparently the settlement on the farms of married couples. A farm labourer with a family, if given a moderately comfortable dwelling of his own on the scene of his labours, is rarely inclined to roam, and, accidents apart, his employer is secured against uncertain and always inadequate labour supply. Many farmers have recognized this, and married couples are in demand at wages ranging from \$250 to \$450 a year (according to their experience of practical farm work) with board and lodging. The wages offered during the harvesting season for inexperienced men are from \$10 to \$15 a week, with board and lodging.

Statistics of any kind are not a strong point with the authorities of Alberta, but there are several valid excuses for their especial weakness in the matter of vital statistics. It is impossible to cope satisfactorily with the heavy and increasing influx of immigrants, many of whom know no English, and take up their residence in outlying parts. As a consequence the civil register of the province is completed only up to the end of September 1910. The appointment of postmasters as registrars of births, deaths, and marriages has had a good effect, but the people generally, and especially the foreign element, are very dilatory in registering such events, and

frequently forget them altogether. Up to the end of September 1910, there were 669 acting registrars in the province, as against 14 in 1906. Their returns show that the number of births recorded was 8,231, an increase of 20·3 per cent. over the number registered in 1909. The number of males born as compared with the females was as 1,065 to 1,000.

The total number of marriage registrations was 3,086, as against 2,032 in 1909. The mean marriage age for males was 28·72, and for females 24·18. The officiating clergymen represented sixteen different denominations, chiefly, however, Presbyterian (828), Methodist (785), Anglican (437), Roman Catholic (348), and Baptist (212).

As against 8,231 registered births there were 3,526 recorded deaths, 2,055 males and 1,471 females, an increase of 864 over those registered in 1909. But in this connexion it may be remarked that the people, though prone to neglect the recording of births, are more careful in respect of death registration, for the reason that they more frequently require official evidence of the latter than of the former.

CHAPTER V

THE LAND

ALBERTA may be divided into three broad geographical divisions—Southern Alberta, embracing the area within which lies the famous Bow River Valley, where is to be found in course of construction the greatest irrigation enterprise in America, and the second largest in the world ; Central Alberta, which includes the rich Saskatchewan Valley ; and Northern Alberta, stretching to the north from Athabasca Landing. All vary considerably in physical and other characteristics, as might be expected in a country extending 750 miles from north to south—a distance as great as from Land's End in England to the north of the Shetland Islands. In the south is a treeless region comprising about one-third of the whole area of the province, where the country is open, rolling eastward from the Rocky Mountains, and where the foothills extend for some seventy miles until they merge gradually into the vast prairie plateau. This forms one of the finest stock- and grain-raising districts on the continent, yet at the same time suggests 'those gardens of the desert . . . for which the speech of England has no name'—the prairie of romance, with its illimitable stretches, its coulees and deep ravines, and its wonderfully productive soil, admittedly as

rich as any in Canada. Nowhere can an impression of the vastness of the prairie be better obtained than from the summit of the foothills, an impression which would doubtless be intensified were it possible to secure a view from the peaks of the Rockies themselves. As it is, the view obtained from a height, especially on a summer day, when the mists lie low, almost gives one the feeling that the foothills are high bluffs at the seaside. However much like a dreary waste the prairie may have been in the days of the old Hudson's Bay Company, that similarity has now entirely disappeared, and the prairie country, stretching for hundreds of miles to all points of the compass, is the most productive in the whole of the Dominion of Canada, dotted as it is with homesteads and with a cosmopolitan population possessing all the qualities that make for strength and success. Having once known it—and to know it is inevitably to love it—the wide western horizon, the height and blueness of the skies, the stinging caress of the wind, sweet with the scent of wild grasses, can never be forgotten, and though at times one may weary of a landscape so level that the eye aches for something on which to rest as a part differentiated from the whole, the wild charm of the prairie is felt once more when it breaks, as it does, into rolling dunes of grass and scrub, with heavenly blue lakes lying hidden away in most unexpected places.

Central Alberta, stretching from the Red Deer River northward to the elevated land between the Saskatchewan and the Athabasca Rivers, differs

from the southern part of the province in that it is more varied in character, while its park-like appearance lends it a beauty and charm entirely its own. It is well wooded and watered, the timber on the banks and shores of its rivers and lakes forming the basis of a large local lumber industry, besides supplying abundant material for railway ties and farm buildings ; in addition to which shelter is afforded through the severest weather by these groves of trees, and the water being always obtainable makes it an ideal country for stock-raising, and consequently for mixed farming. The land is easily cleared and prepared for cultivation ; it is richer in humus as well as deeper and blacker than the soil of the treeless prairie, and will stand years of cropping before it shows any signs of diminishing fertility.

North of Edmonton, which city is considered to be a northern one as Alberta is known to-day, but which is still some distance south of the geographical centre of the province—lies a vast stretch of country not yet surveyed, but comprising more than 50 per cent. of the whole area of the province, where sufficient cultivation has already taken place to establish the fact that the soil is similar to that of Central and Southern Alberta—a deep black loam on the surface with clay underneath—which is as fertile as that further south, the climate not being more severe. Indeed, it is generally considered that the climate of the north is less severe, and certainly the snowfall is less than in the Edmonton district.

The region is one of great rivers, lakes, and forests, containing the immense valleys of the Athabasca

and Peace Rivers, and enormous tracts of open prairie like the famous Grande Prairie—a magnificent extent of land only waiting for a railway to make it take rank as one of the finest stretches of territory in the province. Then there are the great open terraces of the Peace River Valley, which are destined in the future to provide homes for huge aggregations of settlers, who are already, in spite of the lack of railway facilities, pouring in each year, and securing the best locations ahead of the railways which will surely follow. Indeed, at the present time, the Canadian Northern are building a line, which will probably be opened for traffic before the close of the present year, to Athabasca Landing, 100 miles north of Edmonton. This will be the first railway to the north, yet for many years the pioneers already in possession of the country have successfully raised vegetables, coarse grains, and wheat.

No further proof of the splendid home-making possibilities to be found in Northern Alberta can be needed when it is remembered that the prize wheat exhibited as long ago as 1876 at the Centennial Exhibition held in Philadelphia was grown at Fort Chipewyan on Lake Athabasca in latitude 59 degrees, 750 miles north of the International Boundary separating Alberta from Montana. Moreover, far up at Vermilion-on-the-Peace, 700 miles from the nearest railway point, Edmonton, in a latitude almost as far north as Northern Labrador, yet in a country of luxuriant growth and mild climate, a modern electric-lighted flour mill, with a capacity

of 35 barrels a day, has been in operation for some years past for the sole purpose of dealing with the wheat grown in its vicinity. But it must not be forgotten that altitude makes more difference in the successful growth of crops than latitude, and Vermilion is only 950 feet above sea-level (for a little north of Edmonton the highest level of land is reached, and from there the country drops downwards as one proceeds north) while Edmonton is 2,158 feet and Calgary 3,389 feet above sea-level.

Originally all land in Alberta belonged to the Crown, but as, following the transfer of the North-West Territories from the Hudson's Bay Company to Canada, the strongest desire of the Federal Authorities has been to settle people on the land, a liberal policy of land grants has characterized the administration of the North-West from its earliest days. In 1870 a comprehensive system of surveys, projected to cover lands suitable for immediate settlement, was begun, and is still being continued. The completion of the Dawson Route, and the building of the first railway into Western Canada, gave an impetus to immigration which called for prompt measures, and gradually the whole country is being divided into townships, each six miles square, which are again surveyed into blocks one mile square, called 'sections', with a road allowance of 66 feet. These sections are in turn split up into quarters, each containing 160 acres—the size of the typical farm in the West, and usually referred to as 'homesteads'. Homestead rights, similar to those existing at the present time, and

still requiring of course the fulfilment of certain conditions prescribed by the Homestead Law, were first established in May 1871, when provision was also made that any land, subject to certain rights set forth in an Order of Council dated April 25, 1871, and based upon the terms of the Manitoba Act passed in the previous year, might be withdrawn to the width of three full townships for an inter-oceanic railway; which is interesting if only because it constituted the first railway subsidy recorded in the history of the West.

From time to time free grants of land in lots of 160 acres to actual settlers, as well as concessions to railway and colonization companies, have been made, always with the end in view of inducing settlement. In this manner more than 30,000,000 acres of land passed from the Crown to railway companies alone, while one-twentieth of all the land south of the North Saskatchewan was reserved, according to the terms of transfer of 1870, for the Hudson's Bay Company, Section 8, and three-fourths of Section 26 in every township becoming Hudson's Bay land, of which a considerable portion still remains to be sold to such settlers as desire to purchase.

In addition to the Hudson's Bay and School lands, which are referred to in the chapter on Education, large tracts, estimated to comprise more than 1,000,000 acres, have been surveyed for Indian reservations in order that the Indians shall have land of their own for all time on which to live, even when the whole of the rest of the country has been thrown open for settlement and development.

Several of the Indian reserves in Alberta are of considerable size, the largest being the Blood Reserve in the southern part of the province. This is also the most extensive in the whole Dominion, covering as it does 540 square miles, and comprising 354,000 acres. The Indians on this reserve, who are descendants of the principal branch of the Blackfoot nation or family in the great Algonquin linguistic stock, and who for a century assisted in holding against all comers, by force of arms, an extensive territory reaching from the Missouri River north to the Red Deer, and from the Rockies east to beyond the Cypress Hills, numbered in 1910 only 1,149 souls. On the Blackfoot Reserve, fifty miles east of Calgary, and 470 square miles in area, the Indian population in the same year was 768.

Elsewhere in the province are numerous other reserves, as, for instance, the Peigan, 93,400 acres in extent; the Stony, 69,720 acres; the Sarcee, 69,120 acres; the Saddle Lake reserve of 82,560 acres; and several smaller ones.

After the Half-breed Rebellion and Indian outbreak, which occurred in the North-West in 1885, grants of land were authorized to be made to members of the Militia Force who had served in the suppression of the rebellion. Each member of the force actively engaged was given the right to homestead 320 acres in the even-numbered sections of unoccupied Dominion lands, provided the entry therefor was made before August 1, 1886. In the following year similar rights were conferred on the irregular forces engaged in the same way. Under the Volunteer

Bounty Act of 1908, every Canadian volunteer who served with the British forces in South Africa during the years from 1899 to 1902, was entitled to a land grant of two adjoining quarter sections of Dominion lands available for homestead entry, enlisted female nurses having the same rights as volunteers; this grant has not yet ceased to be operative.

Having shown some of the means by which large areas of land in Alberta have been and are being disposed of, there still remains the question, all-important from the settler's point of view, of how to obtain land, and first perhaps it is well to state that even yet there is plenty of free land left in the province, all public lands, which are disposed of as homesteads in Alberta, being controlled and administered at present by the Dominion Government through the Department of the Interior. 'Homesteading,' or the taking up of a free grant of 160 acres, which is claimed to be the last opportunity left to the man of small capital, or having a large family, to become an independent land-owner and to obtain a free farm for himself or for his sons, is no longer the difficult operation that it was only a few years ago, and this is but one of several methods of acquiring land. In certain parts of the province the new-comer may, in addition to his homestead, secure through pre-emption a further 160 acres by complying with certain regulations and ultimately paying \$3 an acre. He may also buy land from the Canadian Pacific Railway Company and from other holders at prices varying, according to position, from \$15

to \$35 an acre, which only half a dozen years ago could have been bought for less than half that price, so quickly do values become enhanced, as the productiveness of the land makes itself known and its earning power is proved. Beyond this, School lands may be bought at auction, when such are offered by the Government, and Hudson's Bay land, and land obtained by Half-breed or Military Bounty Scrip, are also obtainable by purchase. Finally, there is plenty of improved land for sale in every district at prices ranging from \$15 to \$35 an acre, and when it is remembered that there are many American farmers to-day working Central Canadian land valued at say \$20 an acre, and securing therefrom better returns than they could get from land in the State wherein they previously lived, which was sold at prices ranging from \$50 to \$150 an acre, it will be seen that there is a tremendous field for intelligent investment and practical labour. Certainly farming offers the new-comer a surer prospect of securing a substantial financial footing as the reward of hard work and perseverance than any other calling he is likely to adopt.

One other method of acquiring land is sometimes pursued, namely the renting of farms on the half-share plan. The owner of the farm provides the seed, and pays for half the threshing, as well as for half the twine, the purchaser doing all the work and providing also the statute labour, generally five days for a half section (320 acres), and delivering to the nearest elevator for the account of the owner half his crop each year until the farm is paid for ;

6 per cent. is the usual rate of interest on the unpaid principal. If the land is of good quality and near a market the purchaser runs practically no risk by this arrangement, for he always has a fair return for his labour, and in a very few years has paid for and owns the farm.

Next to the question of land, the amount of capital necessary to commence farming in Alberta is an important and often a vital consideration for the intending settler. In this connexion the fact that the demand for labour in Western Canada is even yet greater than the supply makes farming on a small capital an easy undertaking to the man who is willing to work some part of his time for others, until he himself is fairly started on his own farm. In a very interesting *brochure*, published by the Canadian Dominion Government, many useful suggestions are offered concerning the best method of spending varying amounts of capital, all the suggestions being based on actual existing conditions and the results to be obtained therefrom. For the man who has less than \$300 to start with, and who is prepared to work, there are opportunities innumerable of finding employment either with established farmers at wages averaging from \$30 to \$40 a month with board, or in railway construction camps at equally good wages, which would probably be sufficient to enable him in the first year to make his initial payment should he desire to purchase a quarter section. In case 'homesteading' be his objective, he would most likely succeed in fulfilling his homestead duties during some part of the twelve

months. For the man who has a capital of \$600, no time should be lost in taking up his 160-acre free homestead, on which he would doubtless build a small 'shack' and forthwith put in the necessary six months' residence. During the remaining six months he would hire himself out to some successful farmer, and in that way he would make enough money to tide him over the time he must spend on his own homestead—six months during each of three years, when, having complied with the improvement conditions required by the Land Act, he would become absolute owner of his homestead.

To work a quarter section of land to advantage, in a fairly open country, a man would need a team of three strong horses, costing approximately \$200 each; a set of harness costing \$40 to \$50; a wagon costing about \$90; a sleigh for marketing grain in winter about \$30; a breaking-plough costing from \$25 to \$30; a set of harrows about \$15; a disc drill for three horses worth about \$120; a disc harrow about \$25; a binder about \$150; a mower for cutting hay about \$65; while he should also allow a margin of about \$40 for small hand-tools, &c. It frequently happens, however, that two or three beginners will club together and buy their outfit on the co-operative plan—one, for instance, getting the horses, another the binder, and a third the hay-making machinery; they would then work together until each one gets established.

If he builds his house of purchased lumber, as he would probably have to do in open country, our settler would have to estimate from \$300 to \$400

for that, and from \$150 to \$300 for the cost of a barn, according to the size and quality of the building he puts up. And it is interesting to note that in the West a man's barn is often the measure of his prosperity, and is frequently far more pretentious than the dwelling. A granary to hold his crop he would doubtless not need to build for the first year or two.

A man going into 'brushy' country would probably find it advisable to purchase oxen in place of horses for his heavy work, and a team of ponies for his driving and saddle work. Well-broken work oxen cost about \$100 each, and a set of ox-harness about \$25. Indian ponies suitable for light driving and for saddle work average roughly \$75 each. For breaking up brushy country, a somewhat heavier plough known as a 'brush' plough, and costing about \$40, would also be needed. On the other hand, the expense of building, if the settler is in a section sufficiently well wooded to furnish material for a log house, would be less, since the cost of the walls would be little more than that of the labour involved in collecting the logs and putting them up. The only actual outlay would be for the wood (lumber and rafters), which would cost about \$20 to \$25 a thousand, according to quality and proximity to sawmills. In some places there are rural sawmills where lumber can be bought for \$15 a thousand. The price of shingles also varies from \$2.75 to \$3.15 a thousand, according to quality.

This estimate, of course, is contingent on whether the man is handy and is able to do the work for

himself. Otherwise, he probably has a neighbour whose services he can secure. For building log houses in newer settled districts it is usually possible to employ men at from \$2 to \$2.50 a day who have lived there for a while, to do the axe work. In erecting buildings it is well to select a site which is convenient to water. Inexperienced settlers often make the mistake of considering only the scenic attractions of the locality chosen, without ascertaining whether water can be secured at a reasonable depth, with the result that their water-supply becomes expensive. The usual cost of putting down a well is \$1 a foot for the first 50 feet; after that the cost increases until it reaches \$2 a foot when a depth of 100 feet is reached. In most parts of the brushy country water can be obtained at a depth of from 20 to 40 feet; but on the open prairie, while there are occasional springs where water can be secured at a moderate depth, it is well to remember that prairie land very largely becomes prairie land simply because the general water-level is low; naturally, therefore, in order to secure a well, it is necessary to sink to a considerable depth.

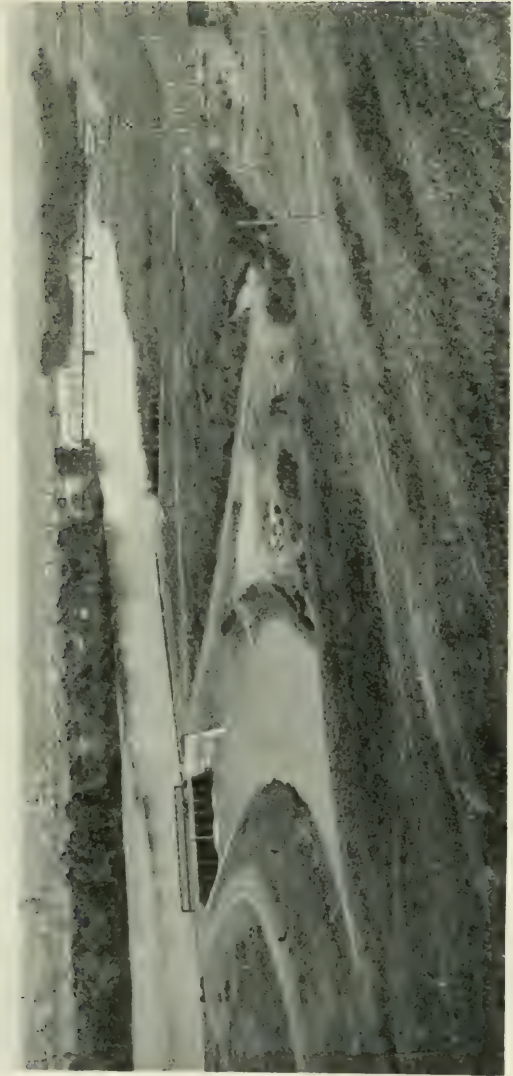
No farmer should go to the West expecting to make a homestead pay its own way the first year, though he can do many things to help himself along. A cow, for which he would probably have to pay about \$50, is usually a good investment, and a vegetable garden almost invariably shows good returns; while the magnificent crops which so successfully advertise the country, and the impetus given thereby to immigration, have been such potent

factors in promoting the upward trend of land values, that it is declared by those competent to speak with authority that much of the land still available for homesteading, and most of the land obtainable even at the low prices now being asked for it, will in a very few years show increases quite as great as those already recorded.

So much for homesteading. Presuming the new-comer has sufficient capital to purchase 160 acres of land on the instalment plan, and taking an average price of \$15 an acre therefor, his first cash payment would amount to \$359.50. In the second year he would pay interest on the balance of the purchase price at 6 per cent., representing \$122.43, and in the third year he would start paying his regular instalments, made up of the balance divided into nine equal annual payments, and the interest split up into equal amounts, which would mean exactly \$300 a year. After the first payment, he would probably contract to have, say, 50 acres of his land broken, which would cost approximately \$4 an acre, whether done by steam-plough or horses. Then would follow the purchase for his own use of three horses, and the necessary farm implements, whereupon he could go to work and disc his land as fast as it was ploughed, subsequently harrowing it and putting in his own crop. His fencing would cost him approximately \$100, and out of an initial capital of say \$1,250 he would still have a small margin left, since his machinery, like his land, would be paid for on the instalment system.

In these latter days, admitting that the problem

of carving out a new home in Western Canada looms up as an undertaking of considerable magnitude, especially to the British farmer of limited means and large family, still another way lies open to the intending settler—a way that is as unique a colonization factor in the history of Canada in general and of Alberta in particular as any ever yet devised. This has, at the same time, the added virtue of being based on a distinctly businesslike footing, its most remarkable feature, perhaps, being that the agricultural success thereof, and consequently the financial and every other kind of success, is entirely independent of rain. When the Canadian Pacific Railway undertook to span Canada with steel, it was agreed by the Government that to make it worth their while they should receive 25,000,000 acres of land stretching across the continent within a twenty-mile radius of both sides of their line, and since they were allowed to pick and choose they declined to accept as part of their real-estate bonus any of the questionable territory, then considered as semi-arid, between Medicine Hat and Calgary. Subsequently, the artificial watering of crops, or irrigation as it is more commonly called, having been found in the United States of America to be productive of most encouraging results, the Ottawa Parliament passed wise laws controlling the Dominion waterways, whereupon the Canadian Pacific Railway, realizing the possibilities of the Bow River for irrigation purposes, said they would have 3,000,000 acres of land in Southern Alberta after all. They forthwith proceeded to spend £1,000,000 in irrigating the



HEADGATES, IRRIGATION CANAL, CANADIAN PACIFIC RAILWAY

area, which is one-twelfth the size of England and Wales. The 'Block', as it is popularly referred to, is divided into three sections, western, central, and southern, each of which is the subject of an individual irrigation scheme. Water will be taken from the Bow River at Calgary for the western and central sections, while the Horseshoe Bend near Bassano will irrigate the eastern section. Already a network of artificial watercourses is spread over the entire western section, for besides providing a reservoir 3 miles long, half a mile wide, and 40 feet deep, the Company have constructed 17 miles of main canals (120 feet wide and 10 feet deep), 150 miles of secondary canals varying in depth from 6 to 8 feet, and in width from 40 to 18 feet, and more than 1,300 miles of main distributing ditches. These works have involved the removal of nearly 10,000,000 cubic yards of earth, to say nothing of the use of 10,000,000 feet of lumber, and 4,000 cubic yards of reinforced concrete in headgates, spillways, drops, flumes, high-way bridges, and measuring weirs.

This done, a plan was next devised for preparing and offering to settlers what have come to be popularly known as 'ready-made farms'. Experience proved that settlers, particularly those of the better class from Great Britain and European countries, found it difficult to take up farms in a new country, to live in such habitations as could be hurriedly provided, and to submit to conditions that must necessarily attend the building up of a home under these circumstances. Therefore, the idea of farming on a partnership basis—for that is really

what the new colonization scheme amounts to—was inaugurated by the Canadian Pacific Railway Company. An area of land, containing from 80 to 160 acres, depending on its location, is fenced, a modest but comfortable house and a barn are built upon it, a well is sunk, about 25 per cent. of the land is prepared for crop, and this is offered to the settler at the price of the land, which ranges from \$15 to \$40 an acre, according to location, and whether it is irrigated or not, plus the cost of the improvements, the whole being payable in annual instalments covering a period of from six to ten years. The settler is enabled, on arriving in the province, to commence farming without any of the trials to which earlier settlers were necessarily subjected. The popularity of this plan is proved by the demand for the farms, which is each year very much in excess of the supply, in spite of the fact that only practical agriculturists with not less than \$2,000 capital are eligible as purchasers. An experimental farm, manned by experts, whose advice is always at the service of new-comers, has been established in connexion with these undertakings, and, growing wheat and oats for an easy beginning, the 'ready-made farmers' will eventually and by degrees work their way to the more compact industries of dairying, poultry-farming, pig-raising, and market-gardening, producing only as much grain as they themselves require. Their farming will not be entirely of the familiar Canadian kind, but will rather offer scope and a fine opportunity for mixed and intensive farming.

CHAPTER VI

AGRICULTURE (I)

FRESH from a sojourn in Japan, it was possible for the writer to compare the conditions of life in that country with those prevailing in Western Canada, especially as the two sets of conditions are for the most part diametrically opposed. In no respect is the contrast more striking than in the manner in which the chief industry is conducted ; the agriculturist of Japan, who nurses with anxious care his two or three acres, ploughing, sowing, and reaping by manual labour alone, lavishing costly fertilizers on the exacting soil, and then pays away in taxes half his meagre profits, is in every particular, as will presently appear, the antithesis of the average Albertan farmer.

In Alberta there are 162,000,000 acres of land, of which over 100,000,000 are available for cultivation, and rather less than 2,000,000 are actually under crops. The soil of the arable areas is uniformly fertile throughout the province, and consists of a thick stratum of permeable vegetable mould, varying in depth from 3 to 14 feet and in colour from black to brown, with a marly clay subsoil. Its chemical composition is nearly perfect ; it is rich in the nutrient elements, nitrogen, potash, and especially phosphoric acid, and carries sufficient lime to liberate the nitrogen for absorption by the vegetation. To a great extent its magnificent fertility is due to the vegetable growth which, undisturbed for centuries,

has by the process of decay contributed its valuable constituents year after year to a soil already prolific.

It is this soil that, in conjunction with a particularly suitable climate and a northerly geographical situation, has made Alberta famous as an agricultural country, and above all as a wheat belt. A cool, moist spring stimulates a root growth which penetrates to an extraordinary depth, ramifying widely and drawing nourishment from a foot and a half of rich mould, pulverized by winter frosts. Summer rains and heat and the long hours of sunshine quickly fill the straw with sap, and when the heat and the rains have ceased, the air, becoming very dry, hardens the grain. As to the influence of geographical situation, it has been demonstrated that the finest wheat is obtained in those districts which lie nearest to the northern limit where wheat can be grown with success.

The most important centres of cultivation are naturally to be found in those parts of the province which are best served by the railways, and the fact that the northern half has so far contributed but little to the agricultural wealth of Alberta has been due entirely to the absence of means of communication; already agriculture is being carried on as far north as Fort Vermilion with as much success from the point of view of quality as in the extreme south of the province.

For statistical purposes the provincial electoral divisions¹ may be regarded as crop districts, and properly to understand farming conditions in Alberta

¹ As mentioned in Chapter II, there are in all forty-one seats in the Alberta Legislative Assembly, some of the cities of the province being directly represented.



WHEAT-FIELD AND TRAIN, WESTERN CANADA

it is essential that their respective areas and positions should be known. In the following table the 'crop area' is the area under grain crops harvested in 1910:

No.	Crop District	Area : sq. miles	Crop Area : acres
1	Cardston	3,200	45,673
2	Macleod	648	16,538
3	Lethbridge	5,184	36,909
4	Pincher Creek	1,152	18,299
5	Claresholm	1,518	66,617
6	Medicine Hat	7,776	16,145
7	Nanton	948	33,173
8	High River	1,164	36,914
9	Rocky Mountains	4,212	No grain grown
10	Okotoks	1,224	14,198
11	Cochrane	1,836	12,884
12	Gleichen	5,004	62,737
13	Didsbury	1,368	65,512
14	Olds	2,970	23,465
15	Stettler	5,364	69,556
16	Sedgewick	8,928	114,539
17	Innisfail	2,844	24,162
18	Red Deer	1,836	19,892
19	Lacombe	1,260	44,241
20	Ponoka	1,476	25,137
21	Wetaskiwin	1,584	32,517
22	Leduc	1,260	26,540
23	Camrose	1,692	65,278
24	Alexandra	2,744	48,506
25	Vermilion	2,622	50,182
26	Vegreville	1,944	54,927
27	Strathcona	540	27,612
28	Stony Plain	4,104	22,305
29	Lac Ste Anne	15,372	797
30	Pembina	19,728	6,090
31	St. Albert	676	19,617
32	Sturgeon	3,636	35,506
33	Victoria	774	41,650
34	Pakan	8,784	10,718
35 ¹	Athabasca	73,820	1,366
36 ¹	Peace River	63,180	2,030
Total acreage under grain crops in 1910			1,192,232

¹ Returns incomplete.

The situation of each district is roughly indicated by its number. Thus Cardston (No. 1), Macleod (No. 2), Lethbridge (No. 3), and Pincher Creek (No. 4), are in the south of the province, the others lying further north more or less in proportion to their numeration.

In examining the results of grain-growing in Alberta in 1910 it is to be borne in mind that the weather conditions for that year were very unfavourable for the farmer with unscientific methods of cultivation. As has been said, the light rainfall of Alberta is almost invariably ample for the needs of the crops, coming as it does precisely during the growing period; but the winter of 1909 was drier than usual, with a light snowfall, most of which was blown away, and the spring of 1910 found the land that in some parts had been exposed rather too dry. The May and June rainfall, copious as a rule, resolved itself into insufficient showers, though in some districts about the usual amount of moisture was precipitated. Speaking of the province generally, however, the growing season of 1910 was the driest ever recorded; the rainfall was almost entirely withheld until the growing season was past, and the yield suffered accordingly.

But for the more intelligent farmer, whose land had been summer tilled to retain the previous year's rainfall, the yields obtained were exceedingly good, 25 bushels of wheat to the acre being common. Indeed, it appears from the official figures that throughout the province no less than 105 farmers threshed 35 or more bushels to the acre of spring

and winter wheat, 44 reaped 70 or more bushels of oats, and 164 obtained 40 or more bushels of barley. Such results are an incentive to scientific and careful cultivation, which only too many farmers, relying upon the wonderful soil and climate of Alberta, have considered unnecessary, as they refused to entertain the idea of a lean year.

It is possible, however, that the incentive will not be sufficient to induce the unscientific farmer to abandon his happy-go-lucky methods. One or two poor seasons in twenty good ones leave him unperturbed ; he is living well and making money besides, and in any case his land appreciates rapidly in value year by year. Further, it must be remembered that the education of many of the older agriculturists has not been such as to enable them to grasp the mysteries of soil-chemistry, crop-breeding, applied physics, and other essentials of modern farming. These are subjects that their sons will learn at Alberta's excellent rural or urban schools.

Of the total crop area 450,493 acres were under spring wheat, 142,467 under winter wheat, 492,589 under oats, 90,901 under barley, 15,271 under flax, 1,522 under rye, and 18 under speltz. These figures, though substantially correct, cannot be regarded as absolutely inclusive. They are obtained from the reports made by the operators of threshing machines throughout the province, in accordance with the requirements of the Threshers' Lien Ordinance, and do not take into consideration many small plots of grain cut for green feed. Moreover, it was impossible to obtain full returns from the Peace River and

Athabasca districts, which consume their own yield. The total area reported as *seeded* to all crops was 1,582,973 acres, and it is probable that this figure is nearer the mark.

For spring wheat the soil and climate of Alberta is particularly favourable, and the area sown to it has rapidly increased from 34,890 acres in 1901. The yield for that year was excellent, averaging 24.58 bushels to the acre for the whole province. Since then there have been two other especially good years, 1905 and 1906 showing respectively average yields of 21.46 and 23.07 bushels per acre. Spring wheat grown in Alberta is a highly profitable crop, a head of wheat usually containing three rows to the cluster, and not infrequently four and even five. The grain, too, is probably the heaviest per bushel measure in the world, and a sample shown at the Provincial Seed Fair in 1910 weighed 67 lb. to the bushel. The berry, especially of the wheat grown further north, is full and round, of an amber colour and rich in gluten. Even under the unfavourable conditions of last year (1910) the average yield was 28 bushels to the acre in the St. Albert district, 26½ in Lac Ste Anne, 23.81 in Ponoka, 23 in Leduc, 21.80 in Sturgeon, and 21.56 in Pakan, though on the other hand, in the Macleod, Lethbridge, Claresholm, Medicine Hat, and Pincher Creek districts the average was under 9 bushels, while the 22,444 acres under spring wheat in the district of Nanton could produce no more than 109,400 bushels. The average for the whole province was 12.65 bushels to the acre and the total yield, to which the district

of Sedgewick contributed more than one-fourth, was 5,697,956 bushels. The average yield for the last ten years is shown in the appendix on p. 245.

The results of most of the early experiments in farming in Alberta were varied and uncertain, due mainly to unsuitable methods of cultivation. Crops that were grown successfully elsewhere did not always thrive under the same treatment in Alberta, though phenomenal yields at times showed the possibilities of the soil under proper conditions. Still, until a really reliable crop could be discovered, farming was almost entirely speculative. Fortunately such a discovery was not long delayed. A soft variety of winter wheat called 'Odessa' had been introduced by the Mormons, who first settled about Cardston some fifteen years ago, and had been raised with uniform success, but it was not until 1902 that a variety of wheat very much better in quality was imported from Kansas. It was known as 'Turkey Red', and it was really the introduction of this variety that demonstrated the wonderful possibilities of winter wheat growing in Southern Alberta. So greatly did Albertan soil improve the quality of 'Turkey Red' that the grain now grown in the province far surpasses the Kansas product, having become generally known as 'Alberta Red', under which name it is in these days shipped back to Kansas for seed. Recognized in the world's markets as equal to the wheats grown in Hungary and Bohemia, whether used alone for grinding or having its flour blended with given quantities of other well-known makes, 'Alberta Red' is grown through-

out the province, and so successfully that the area under this cereal has increased more than fifty-fold since 1903-4. The 1910 crop was less affected by the disappointing weather than was the spring wheat crop, but it lacked the protection usually afforded by the snowfall, was exposed to frost and drying winds in the early spring, and suffered from the abnormally slight rainfall in the spring and early summer. Nevertheless it showed an average yield to the acre of $29\frac{1}{2}$ bushels in the St. Albert district, 26 bushels in the Athabasca district, and of well over 21 bushels in the Lacombe, Leduc, Strathcona, Stony Plain, Pembina, Sturgeon, Victoria, and Paskan districts. Poor yields in other parts reduced the average for the province to 15.48 bushels, or less by 6 than the average from 1903 to 1910.

The popularity of winter wheat is due not merely to the fact that it is a very safe and lucrative crop, but also to the circumstance that by growing it in addition to spring wheat the farmer can divide his work into two seasons. It can be sown at any season of the year and pastured until the beginning of winter; it yields a good crop in the following year. As soon as this crop is cut the stubble may be sown and 'disced' for the succeeding crop, without ploughing. In many cases one sowing produces three crops, the last two being 'volunteer' crops, that is crops grown from shelled grain without ploughing, discing, or harrowing, and averaging perhaps 15 and 10 bushels to the acre. The best results with winter wheat, however, seem to be gained by sowing early in August on summer fallowed land.

The hardest and best winter wheat is grown in the extreme southern portion of the province, particularly in the Pincher Creek and Cardston districts. Further north, doubtless by reason of the greater rainfall, it is somewhat less hard and at the same time lighter in colour than the southern product. But the whole yield of 'Alberta Red' is much in demand in British and Eastern markets, as well as to some extent in the United States of America, and it commands everywhere a considerable premium. It is therefore no matter for surprise that the area sown to it increases enormously every year. Statistics which must be regarded as official indicate that the area under winter wheat in 1911 amounted to 183,444 acres, but an estimate based on the reports of correspondents in each district assigns no less than 220,000 acres to this particular grain crop.

The growing of wheat, spring and winter, was so much in favour that the area sown to each in 1910 was greater by approximately 40 per cent. than in the previous year, while, largely as a result of this increase, the acreage under oats showed a decline of 30 per cent. The average yield also decreased by about the same percentage, and the total production of oats in 1910 was consequently less than half that of 1909. In mitigation of these somewhat startling statements it must be remarked that 1909 was an abnormal year, in which the late-coming spring made the farmers chary of seeding a large area to spring wheat, whereas in 1910 the spring was early, and the conditions were reversed.

Albertan oats are no less distinguished for their

size and quality than Albertan wheat, and their weight per bushel is as remarkable as is their yield per acre. Careful farmers can thresh 50 to 60 bushels per acre year after year, and each bushel will weigh at least 42 lb., or 8 lb. above the standard for all Canada. But careful farmers are at present in the minority, and the average yield for the province, from 1899 to 1910, is 34 bushels per acre. Didsbury, Sedgewick, Lacombe, Wetaskiwin, Camrose, Sturgeon, St. Albert, and Victoria are, among others, famous as being great oat-yielding districts, and in 1910 they grew between them 6,500,000 bushels, or very nearly one-half of the total production.

Barley is another safe crop, much in favour in mixed farming districts, and this cereal has been successfully raised since the earliest days of settlement in the province. Two varieties are grown—the six-rowed barley, for the most part in Central Alberta, and the two-rowed in the south. The former is mainly used for feeding purposes, the latter for malting, and the quality of both is excellent. The grain ripens to perfection, it is plump and of good colour, and frequently weighs 55 lb. to the bushel. The area under barley in 1910 was less by 15 per cent. than in 1909, and the average yield was reduced by about 30 per cent., so that the total production fell from 3,310,332 bushels to 1,889,509. But in a moderately good year the average yield for the province is about 31 bushels to the acre, while by scientific methods as much as 55 bushels have been obtained.

The results obtained in the cultivation of the four

chief grain crops of Alberta in a decidedly lean year have been set forth as plainly as possible, but merely because the returns for 1910 are the latest available. In the following table, however, it may be seen how Albertan soil produced grain in a good year and in a moderately good year, in comparison with a year which was in most respects the worst on record :

<i>Year</i>	<i>Spring Wheat : Bushels</i>	<i>Winter Wheat : Bushels</i>	<i>Oats : Bushels</i>	<i>Barley : Bushels</i>
1901 {	857,714 (24.58 per acre)	82,418 ¹ (23.95 per acre)	4,253,284 (40.68 per acre)	442,381 (32.81 per acre)
1906 {	2,664,661 (23.07 per acre)	1,301,359 (21.11 per acre)	13,136,913 (39.12 per acre)	2,157,957 (29.32 per acre)
1910 {	5,697,956 (12.65 per acre)	2,206,564 (15.48 per acre)	12,158,530 (24.68 per acre)	1,889,509 (25.88 per acre)

Average prices during 1910 may be taken as 96 cents for wheat, 33 cents for oats, and 45 cents for barley, so that the aggregate value of the four crops in question was approximately \$12,450,933 or £2,593,944.

Flax is a crop which is growing in favour, and the acreage sown to it has increased more than four-fold since 1906. The yield in 1910 was 46,155 bushels, which at the average price of \$2.21 gives a value of \$102,002 or £20,400. At present flax is grown for the seed alone, as there are no facilities for extracting the fibre from the straw, which represented in

¹ 1903, the first year in which winter wheat was grown to any extent.

1910 some 3,000 tons of fibre. Rye and speltz play a comparatively unimportant part in Albertan agriculture.

The question of root and fodder crops is of great consequence in view of the strong tendency to mixed farming in Alberta, which is discussed in the second portion of this chapter. The world's best forage plant is alfalfa, and it is a fact of the utmost importance that Alberta, and especially Southern Alberta, will produce this crop in abundance, 3 tons per acre and two or three crops in succession in one year being not at all unusual. Alfalfa replenishes the soil and improves its texture, increasing its capacity to absorb and retain water, while as a stock feed it is exceedingly valuable. Often 50 per cent. more oats or wheat can be raised on alfalfa land than on land which has never grown alfalfa, and one acre of this king of forage plants will keep ten or a dozen hogs from spring to the beginning of winter and add a hundred pounds to the weight of each of them. For all live stock, including poultry, it is equally good.

It is therefore satisfactory to know that the Dominion Department of Agriculture is doing all in its power to promote the cultivation of alfalfa. At the experimental farms at Lethbridge and Lacombe seed is distributed at nominal prices, and the soil from the old alfalfa fields is used for inoculating purposes. On irrigated or non-irrigated land it is grown in Alberta to perfection, and it forms one of the most valuable of crops.

The area under hay and clover in 1910 amounted

to 65,100 acres, and the total production to 57,000 tons. Both alsike and red clovers are grown successfully wherever the attempt has been made, and the little white clover flourishes in profusion throughout the province. Timothy is a popular and a remunerative crop, and there is a good demand in the province for all that is grown.

Field roots, such as potatoes, turnips, and mangolds, do extraordinarily well in Alberta. Potatoes in particular attain a great weight, $1\frac{1}{2}$ lb. specimens being nothing unusual, and in 1910 the 12,848 acres sown to them yielded 1,633,748 bushels, an average of 127 bushels per acre. Other yields were turnips (2,137 acres, 13,333 tons), carrots (680 acres, 3,376 tons), and mangolds (534 acres, 3,440 tons).

CHAPTER VII

AGRICULTURE (2)

THE first great industry of Alberta was the rearing of cattle, and although of late years the more lucrative occupation of wheat-growing has attracted many settlers, live-stock farming still forms the most important branch of agriculture. But a change is coming over the industry. It is only eight or nine years ago that half a million square miles of Albertan territory in the south were held, partly on freehold and to a much greater extent on Government lease, by large ranching concerns. The ranges were wide enough to allow each head of cattle 60 or 100 acres, and the conditions were ideal. An abundance of excellent food, water-courses, and springs in plenty and a sufficiency of good shelter kept the vast herds in fine condition with very little attention, while two men could manage 1,500 head of stock. Even in winter, hay or grain feeding was rarely necessary, and the absence of stabling troubled the cattle only in the hardest weather. Every year between 70,000 and 80,000 head were driven off the ranges, entrained for home consumption, or sent to the coast for shipment 'on the hoof' to Liverpool.

But the influx of settlers and homesteaders who came into Alberta at the call of the Government, together with the restrictions placed in England on

the importation of all live foreign cattle, put an end to the prosperity of the big ranches. The 'Old Country' market was practically closed to them; their ranges were invaded by quarter-section and half-section owners and by purchasers of land, all eager to grow grain. In vain did the ranchers spread reports of terrible winters, of scarcity of water, and of land fit for nothing but ranching, and equally in vain did the 'cowboys' pull up the Government survey-posts which should have indicated to the homesteader the scene of his future labours. Each year saw the free, open ranges curtailed; railways spread across them, and barbed-wire fences restricted the freedom of the herds. Southern Alberta was no longer a rancher's paradise, and most of the large concerns began to reduce their herds. The invasion continued, and many sold out altogether; to-day the half-million acres of range have dwindled to 12,000. A few, however, remain, running herds of 500 to 20,000 head, in the district south of the main line of the Canadian Pacific Railway, with Macleod as a centre.

In the place of the big ranches are the smaller 'outfits' of the Medicine Hat district, with from 50 to 2,000 head apiece; and the farmer with the small herd and the grain-field, pasturing his beasts and fattening them for market with farm products. But the change has not resulted, as some predicted, in the extinction of the stock-raising industry; on the contrary, census figures show that in 1910 there were twice as many head of live stock in the

province as in 1901, and very few less than in 1906. Moreover, whereas in 1906 only about 71,000 head of cattle were exported from Alberta, the shipments during 1910 amounted to no less than 184,269 head.

This state of affairs is due mainly to increasing recognition of the fact that to grow grain exclusively is a mistake; it needs the co-operation of cattle-raising. Stock-raising does much to restore to the soil the fertility of which grain-growing sooner or later drains it, though the wonderful Albertan land will yield successive crops for fifteen years without recourse to fertilizers and without appreciable loss of vigour, while it is obvious that a farmer who raises both wheat and cattle divides the risk of a bad year. There can be no doubt that in the future Alberta is destined to be more than ever a mixed farming country.

The revolution that is taking place in the stock-raising industry thus only amounts to a restriction of the range necessary for beef cattle, and a consequent increase of the pastured and grain-fed farm stock. The natural conditions which obtain in Alberta are, of course, as favourable for stock-raising as when the buffalo chose the Albertan ranges for winter quarters. In the south, broadly speaking, there is abundance of succulent and nutritive grasses; in the northern brush area pea-vine and vetch, than which there is no feed better for milk production, grow to such a height that heavy snowfalls leave them exposed for pasturage. In the cold but dry winter an open shed or a clump of trees still provides sufficient shelter for live stock, which are the stronger

and hardier for wintering out of stables. The fodder straws (wheat, oats, and barley) have nowhere a higher food value than in Alberta, and throughout the province there is no lack of good water.

The subjoined table will show the trend of the industry within the last decade :

<i>Live Stock in Alberta</i>	1901	1906	1910
Horses	93,001	226,534	254,197
Milch cows	46,295	101,245	94,071
Other cattle	329,391	849,387	558,038 ¹
Sheep	80,055	154,266	171,357
Swine	46,163	114,623	155,301
	594,905	1,446,055	1,232,964

As to horse-breeding, there can be no question of the suitability of the province. It can be demonstrated in a very striking fashion. A few years ago the only equine representatives in the country were the broncho and the cayuse, the wiry and hardy Indian pony. The cayuse stood about 13 hands high, and weighed a matter of 800 lb., affording a perfect mount for the cowboy, but being next to useless on the farm. Careful selection of imported sires to mate with cayuse mares has resulted in a fourth generation of magnificent horses, 16 hands high, and weighing close upon 1,600 lb.

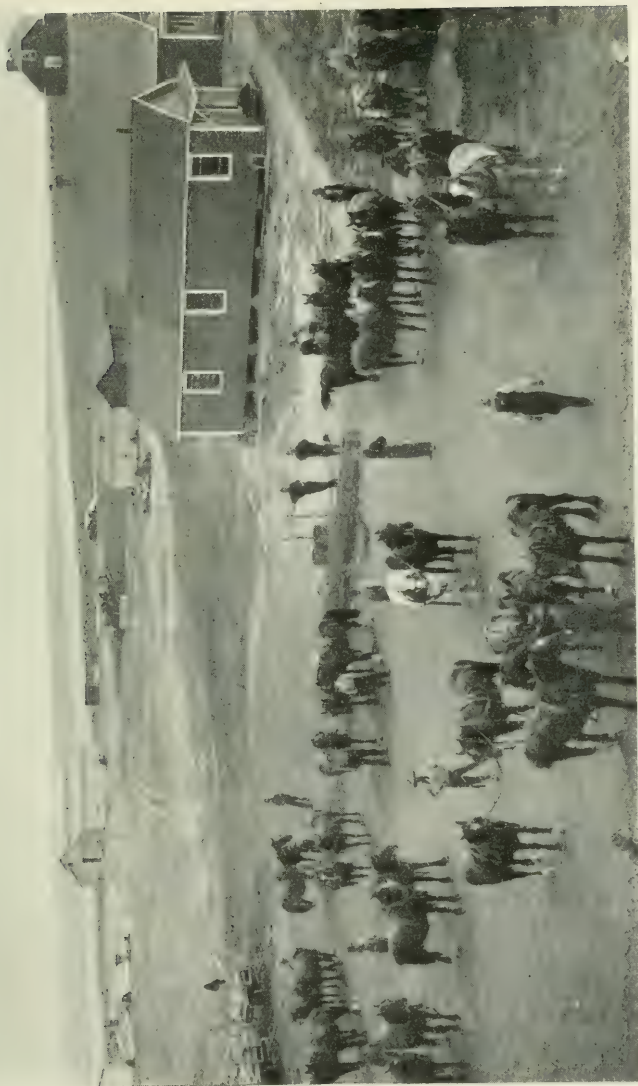
The heavy draught-horses to be seen in the streets of the cities and towns of Alberta are a perpetual delight to the eye. For the most part they have been born and bred in the province, either on

¹ Beef, 113,066 ; other, 444,972.

the ranges or by the holders of small farms. The demand for these horses far exceeds the present supply. The mining and lumber camps in British Columbia take as many really heavy beasts, say 1,700 lb. and upwards, as they can get at \$300 and \$350 each, and within the province prices are little inferior. Yet practically all of these fine animals fend for themselves throughout the winter, even the brood mares and colts receiving as a rule very little feed in the shape of supplementary rations of oats and bran.

Among the extraordinary variety of grasses found on Albertan uplands is the blue grass which made Kentucky famous as a horse-breeding State. Others are: timothy, oat grass, wild barley, grama grass, slender-leaved meadow grass, bunch grass, and wild brome, while the lowland and water grasses include cord grass, white top, and pony grass. Much of the success which has attended horse-breeding and stock-raising in Alberta must be attributed to the excellence of the native prairie pasture, which during the fall cures into hay, and is eaten with relish by horses and cattle alike.

Cattle, though they receive no more attention than horses, attain a very satisfactory size and condition. An average weight for four-year-old range steers, which have been reared entirely in the open, have never eaten grain, and have only occasionally been allowed a ration of hay, is between 1,500 and 1,700 lb. Until very recently the beef-producing breeds were most in favour with importers, but the development in the dairying industry has now



WORKING TEAMS ON A DEMONSTRATION FARM IN ALBERTA

resulted in the introduction of sires of breeds like Jerseys and Holsteins, and there are already some thirty herds of pure-bred dairy cattle of good class in the province. Dairying in Alberta is a very remunerative business. The demand for milk, cream, and other dairy products, especially in Calgary and Edmonton, far exceeds the local supply, and the dealers frequently send their agents a hundred miles or more to secure sufficient milk and cream for their trade. Dairy cattle, of course, do not live in the same Spartan fashion as the range herds. They are comfortably stabled, but it is surprising to what extent the dairymen depend upon native grass pastures to furnish the summer feed for milch cows. The subject of dairying, however, is alluded to further on in this chapter.

Sheep, which like the cattle are rapidly disappearing from the ranges, have not so far followed the cattle to the farm. Yet their value on the farm as scavengers and destroyers of noxious weeds, and in assisting to preserve the fertility of the soil, is as evident as their value in mutton and wool, and there is a distinct tendency among farmers, especially in Central Alberta, to include them in their mixed farming programmes. There are perhaps some 20,000 sheep in farm-flocks at present, and there will undoubtedly be many more in a few years. The cost of fencing against the coyotes and prairie wolves is still rather a large item, in spite of the bounties offered for the destruction of these pests by the Provincial Government, but otherwise the conditions for sheep-rearing are satisfactory. The prairie weeds

and wild flowers appeal strongly to sheep, and supplementary foods are easily grown—winter rye where the soil is a sandy loam, and rape and turnips practically everywhere. They need no more shelter than other kinds of stock—in fact they are much better without it, and as Albertan winters do not, except in a few low-lying districts, involve weeks of mud and slush, they are free from footrot and similar diseases. Wool at 12 to 15 cents a pound may not mean more than about a dollar per head of average profit, but the possibilities in growing sheep for mutton are indicated by the fact that the steadily improving demand in Alberta and British Columbia is mainly supplied from Australia and Nova Scotia. Frozen mutton, however, no longer satisfies the inhabitants of the cities and towns, and the Albertan farmer with fifty or more head of Southdowns or Cotswolds finds them an admirable medium for diversifying his interests.

In spite of the fact that Alberta does not produce much Indian corn, it has been clearly shown that for the rearing of swine the province offers distinct advantages of soil-conditions and climate. A hog-house in Alberta need be nothing more than a rough shelter admitting air and sunlight and excluding snow, and a pile of wheat straw provides excellent sleeping quarters for the winter months. While the native grasses are admittedly not the best possible pasturage for swine, it is easy, by sowing at suitable seasons, to provide rye and winter wheat from spring to autumn, and pigs raised on oats and fattened on barley produce very little less pork than those

fed exclusively on Indian corn, which is vastly more expensive. The flavour of Albertan pork is, moreover, decidedly superior. Berkshires seem to be the most popular breed, and are followed in favour by Yorkshires, Tamworths, and Chester Whites.

In British Columbia and in Alberta itself there is a great demand for pork and pork products, and though packing-houses have now been established in Calgary and Edmonton, large quantities of pork are imported from Chicago. Here, then, is the basis of a good market, and in conjunction with the rapidly growing dairy industry hog-raising is practically assured of a great future.

As to the poultry and dairying branches of mixed farming, the writer firmly believes that nowhere can they be more safely and profitably carried on than in the province of Alberta. The advantages which the province offers to the poultry-raiser are the same as have made it possible for the wild turkey, the partridge, and the prairie chicken to thrive and multiply; the peculiar dryness and clearness of the air is highly beneficial, and occasional cold spells do the birds no harm. Even in the lowest temperature, if their roosting-quarters are warm, poultry in Alberta will lay throughout the winter. The industry enjoys the active support of the Provincial Government, which in 1908 established a poultry-breeding station for distributing birds and eggs to farmers and poultry-raisers. Pure-bred birds are selected by experts and sold at nominal prices, and the resources of the station are taxed to the utmost to satisfy the applicants.

A considerable business is done in turkey-raising, and where large areas of wheat stubble are available for forage this branch of mixed farming is very profitable indeed.

Dairying has for some time been a State-supervised industry, first by the Dominion Department of Agriculture, which in 1896 undertook the control of the creameries of the North-West Territories, and subsequently (since 1906) by the Provincial Department, through a Dairy Commissioner. Experts are employed to inspect buildings used for the manufacture of butter or cheese, and to enforce hygiene therein; to give instruction as to the best methods of production; to examine animals and advise as to the handling of milk and cream, and generally to assist the industry. The Provincial Government maintains in Calgary the largest and most important dairy station in Western Canada, where it undertakes the manufacture of butter, at the rate of 4 cents per lb., from cream received from the fourteen Government creameries established throughout the province. The patrons of these institutions, who constitute a co-operative creamery association, guarantee a supply of cream from 400 cows for a period of five months in each year. At the end of every month each patron is advanced 20 cents per lb. on the butter-equivalent of the cream he has contributed. In connexion with the dairy station is a cold-storage establishment, wherein the butter is stored to await a favourable market, and when the total output of the season has been realized, each patron receives the balance due to him, minus the

sale expenses and the cost of manufacture. This co-operation under the aegis of the Government has resulted in a large winter export business. Albertan butter is already famous outside the province, and in the towns and cities of this province it commands a good price all the year round.

In addition to the creameries supervised by the Government, there were in operation in 1910 some forty-six private creameries and eleven cheese factories, which may also command the services of the Government experts. The creameries of the province (sixty in all) manufactured 2,315,000 lb. of butter, which was sold at an average price of 25 cents per lb., and the cheese factories produced 110 tons of cheese. The Government have also lately introduced a scheme of travelling dairies in conjunction with the farmers who, attracted by good markets, are beginning to make butter on their own account, with the result that the quality of home-made butter has steadily improved.

Having seen what the Provincial Government does to encourage co-operation among the farmers, it is interesting to note that the farmers themselves have a mutual benefit association known as 'The United Farmers of Alberta', which, though not incorporated and consequently possessed of no financial standing, is yet recognized by all commercial men as a business organization, and takes rank as one of the most influential of the farmers' organizations in Canada to-day. The work carried on is mostly of an economic nature, and the members can point with pride to a long list of successes achieved

by them. Through their activity the Pork Commission of 1908 was appointed, and it is still hoped that, acting on the findings of that commission, a pork-packing factory, operated and controlled by the Government, may be established in the province. The Association has also assisted in the improvement of the grain industry, and among minor matters taken up are the provision of loading platforms at different points in Alberta, and the reduction secured in the prices for binder twine, formalin, and other necessities of the farmer. The Association has further assisted in obtaining cheaper rates on railways, especially in Southern Alberta, both for passenger and freight traffic, and has encouraged farmers to ship their own grain, thereby securing better prices for their products. The idea of establishing elementary short-course schools in agriculture was first proposed by the Association, and the officers of the Association further take up grievances of individual farmers, both with the Board of Railway Commissioners and with the Board of Grain Inspectors. No member is obliged to endorse any political candidate, or any party policy, but this does not prevent the Association from working in the direction of influencing opinion on public questions in order, however, to endeavour to induce farmers to act in harmony in political affairs. The organization generally is always alive to the needs of the province, and is willing at all times to assist in securing a remedy for any evil that may exist, no matter whom it affects.

In the chapter on 'The Land' an attempt has been made to indicate the amount of capital neces-



BREAKING VIRGIN PRAIRIE BY STEAM

sary to commence farming in Alberta, and here it is proposed to show as accurately as possible the average profit obtained from one acre of wheat land in Alberta. The calculation (which is the work of Mr. Ernest Peery of Maryland, U.S.A.) has been very carefully made on a basis of five years' average costs and prices, taken from official sources :

	\$
Cost of preparing 1 acre for seeding	2.25
Cost of drilling 1 acre14
Cost of binder, harvesting75
Cost of threshing and delivering 22.47 bushels at 8 cents	1.80
<hr/>	
Total cost of 1 acre's wheat delivered to elevator	4.94
Interest on land at \$15.00 per acre at 8 per cent.	1.20
Land, school, and road taxes, per acre, about	.17
<hr/>	
	6.31
22.47 bushels at 75 cents	16.85
<hr/>	
Clear profit per acre	<u>\$10.54</u>

It is claimed that this is an accurate calculation of the profit yielded to the best class of Albertan farmers by an average acre of their best wheat land, but there are two items with which experienced agriculturists of the province are not inclined to agree. The first is the cost of preparing the land, which, it seems, is really much nearer \$4, and the second is the average yield of 22.47 bushels, which is not greatly superior to the average yield of the whole province, and must include low yields due to negligent and unscientific farming. The average yield

amongst the best farmers would, indeed, appear to be nearer 30 bushels.

We have now to discuss the question of marketing grain in Alberta. The grain trade is regulated by the Manitoba Grain Act of 1900, which provides the fullest protection for the farmer. The administration of this Act is in the hands of a Warehouse Commissioner, who is not permitted to have a pecuniary interest in the grain trade. All grain is sold in accordance with grades established by law and determined by Government inspectors, and practically all the grain grown in the province is handled through 'elevators', owned for the most part by grain dealers and milling companies, who are licensed by the Government and bonded. These elevators are erected alongside the three great trans-continental lines at most of the stations in the grain district, and in Alberta they have an aggregate capacity of about 9,000,000 bushels. Calgary has a row of elevators capable of holding 657,000 bushels, and Edmonton, Camrose, Staveley, Carstairs, Claresholm, High River, Lethbridge, Nanton, and other grain centres are provided for according to their needs. In all there are some 140 stations in Alberta possessing these storing facilities.

Having wheat to dispose of, there are several ways in which the farmer may do it. He can either sell it outright to the Elevator Company at a figure regulated by the price of the day at Winnipeg, settlements being made on the company's grade weights and dockage (this is known as 'street price'); or he may store it to await a favourable market, in

which case he is given an acknowledgement of the deposit of a certain quantity of a particular grade. Should he decide to deal directly with buyers at a distance, he simply pays the Elevator Company at the rate of $1\frac{1}{4}$ cents per bushel for taking in and cleaning the wheat, storing it from fifteen to twenty days, and putting it on board the train. All he has to do then is to send the Elevator Company's receipt by mail to the buyer or agent of his choice, the Railway Company being bound to allot grain cars to farmers in the order in which they have been applied for. Any station-master who allots a car to any customer, no matter how influential he may be, out of his proper turn, is liable to a heavy fine. Again, if the farmer prefers, he can ship his grain on his own account, for the law provides for a loading platform at every station, on which he may drive his cart and load direct into the freight cars. Thus the farmer with 50 bushels is at no disadvantage as compared with one who has 5,000. There is still another alternative open to him; at various important stations (some thirty-five or so) there are flour and oatmeal as well as feed mills to which the farmer can sell his produce, though these mills naturally need only small quantities compared with what is shipped to Eastern Canada, the United States, and Great Britain.

The price of wheat is to a large extent determined by the price which is being paid for it 'free on board' at Liverpool, Great Britain being the world's market for foodstuffs of all kinds. The grain business of Alberta (as of all Western Canada) is con-

ducted through the Grain Exchange at Winnipeg, and all quotations are for grain in store either at Port Arthur or Fort William. The subjoined table will show the various grades of Alberta grain, and the prices that ruled during 1910 :

<i>Grade</i>		<i>Average</i>	<i>Weekly Prices</i>	
			<i>Highest</i>	<i>Lowest</i>
Wheat	No. 1 Northern	\$0.97½	\$1.11 ⁵ / ₈	\$0.87½
	No. 2 „	0.97	1.08 ⁵ / ₈	0.85½
	No. 3 „	0.94	1.03 ⁵ / ₈	0.82 ⁵ / ₈
	No. 4 „	0.90½	0.98½	0.78 ³ / ₈
Oats	No. 2 C. W.	0.34½	0.40	0.31
	No. 3 „	0.32 ⁵ / ₈	0.36	0.29 ⁵ / ₈
Barley	No. 3 „	0.46	0.51	0.40
	No. 4 „	0.41½	0.45½	0.37

In the previous chapter mention was made of an irrigation scheme on the Bow River, and as the subject of irrigation is of most interest in connexion with agriculture, and is so closely bound up with the future welfare of the province, it may perhaps be briefly dealt with here.

Farming on irrigated land is the nearest approach in Alberta to the intensive cultivation of Japan. Irrigation has been practised ever since the province was settled, though at first it was carried on only on a very small scale, and in the crudest fashion. Later, there was for a few years a considerable development of irrigated farming, especially in the country around Lethbridge; but several successive years of abundant rainfall created the belief that the settlement of the country had affected the climate, and most of the irrigation works were only used upon occasion.

Irrigation schemes were again started when it was found that the increase in the annual rainfall was not permanent, and some of the numerous streams in the Cypress Hills district between Moosejaw, in Saskatchewan, and Lethbridge, have within the last four or five years been utilized for irrigating small tracts of valley land. The results obtained have been in most instances highly satisfactory ; some cereals have been grown very successfully, but the chief cultivation is hay and pasturage. In all, probably some 20,000 acres in Alberta are irrigated by small enterprises, but there are three important schemes of which the works are in course of active construction, and which, when completed, will bring under irrigation an area of over 1,900,000 acres.

The largest of these concerns, which is in the hands of the Canadian Pacific Railway Company, has been previously referred to. Surveys have shown that of the tract of 3,000,000 acres of land along the main line of the railway between Calgary and Medicine Hat, about one-third can be irrigated, and that the soil thus watered is easily worked and very productive. When it is completed millions of dollars will have been spent on the scheme, which affects a tract of country almost as great in area as all the irrigated lands of Colorado or California, and twice as large as Utah, and which, as is frankly admitted by its promoters, is being carried out 'not from philanthropic motives but purely as a business enterprise', beneficial to the settler, the Company, and the province.

If any further evidence were required to prove

that the Canadian Pacific Railway Irrigation and Colonization Company desires to demonstrate to its resident landowners the best agricultural systems applicable to their irrigated districts, it is to be found in the fact that last year the Company appointed an irrigation instructor to demonstrate to farmers who, having purchased land in the Bow River valley, are yet unacquainted with the principles of irrigation, the best way of laying out their water-distributing system, and to afford them reliable information regarding the application of water to the various crops. The labour spent in the making of ditches is a permanent investment, and adds to the value of the farm. Not so much land is occupied by irrigation works as might be imagined, for it takes a long series of ditches to cover an acre of space, and in any event the increased crops more than compensate for any land so taken up.

The Alberta Land and Irrigation Company has practically completed a system of canals and dykes with a total extension of about 220 miles, taking water from the St. Mary's River in the vicinity of Cardston by a canal with a capacity of 800 cubic feet per second. At present the system actually irrigates about 75,000 acres of land in the Raymond and Lethbridge districts, where alfalfa and sugar beet have been grown with great success, but when fully developed its sphere of influence will cover 475,000 acres. The company also holds water rights on the Belly and Milk Rivers.

The Southern Alberta Land Company, like the Canadian Pacific, taps the Bow River, its main

canal leaving it at a point 35 miles south-east of Calgary. Thence it runs south and east for about 48 miles, emptying finally into a reservoir with an area of 18,000 acres, and a capacity of 360,000 acres of water one foot in depth. At the north end of this reservoir, which is known as Lake McGregor, an immense dam has been constructed, 3,600 feet in length, and 48 feet high, while the dam at the southern end is 2,100 feet in length and 46 feet in height. The tract to be irrigated (some 414,000 acres, of which about 230,000 acres is irrigable) lies between the town of Medicine Hat and the cities of Calgary and Lethbridge to the east of the southern end, whence issues the main outlet canal, 40 miles in length. Irrigation has already been commenced, and will probably be in full operation early in 1912.

The lands which these great undertakings will irrigate are not necessarily barren through lack of rain; they lie in districts where experience has taught farmers that a sufficient rainfall is not always to be relied upon, and consequently their irrigation is merely a form of crop insurance, or, rather, insurance of bigger crops. In many instances it increases the yield by 60 per cent. or more, especially in the case of such crops as roots, vegetables, and alfalfa; its greatest virtue, however, lies in the fact that it makes crops certain and independent of the rainfall. Moreover, since the waters of Alberta are, under the Canadian Irrigation Laws, recognized as the property of the Crown, it is worth noting that the title given for a water right is equal to and is as good as the title given for land, with the result that during

the ten years in which irrigation has been practised in the province there has not been a single lawsuit involving water rights.

To return, however, to the crops best grown on irrigated lands, the cultivation of sugar beet is particularly lucrative. At present this industry is chiefly confined to the district round Raymond, where there is an important sugar beet factory, built in 1908 at a cost of £100,000, further reference to which will be found in Chapter XVIII. It is estimated that one man can take charge of about 15 acres of beets, and that on dry land the crop averages from 8 to 10 tons per acre, the yield on irrigated land being much higher. The price paid to the farmer for beets delivered at the factory is \$5 per ton, while the estimated cost for labour, seed, &c., is about \$25 for a crop of 10 tons to the acre. And, like alfalfa raising, beet-growing is a beneficial industry, for it results in the extinction of weeds, besides producing minor industries, and thereby giving prosperity to a district. The refuse is all valuable food for stock, and it is perhaps not too much to say—so rich is the succeeding crop of wheat—that the profits on beet-growing depend almost as much on the price of wheat as of sugar. At Raymond the Knight Sugar Company, who own a factory which is the only one of its kind in Western Canada, have about 2,600 acres in beets, while an equal area has been cultivated by the farmers in the neighbourhood, who deliver their roots by wagon or railway, according to their distance from the factory. In 1910 the price paid to growers was, as above stated,

\$5 a ton. The sugar content of the beets was 15 per cent., though the actual yield of granulated sugar at the mill was about 2 per cent. less. The mill gave a sugar product of 1,202,000 lb., the value of the crop to the farmers working out at \$34.50 per acre. This proves beyond doubt that the growing of sugar beets is a very remunerative business from the farmers' point of view, while the profits earned by the Knight factory are equally satisfactory from the standpoint of the Company.

CHAPTER VIII

MINING AND SOME MINING TOWNS

LONG before the agricultural importance of the prairie lands of Alberta was recognized at all generally, seams of coal, laid bare by the eroding action of the rivers, revealed to the first explorers the presence of the mineral wealth which is now so apparent in the southern half of the province. More than a century ago—in 1800, to be exact—David Thompson noticed coal on the Saskatchewan, and in McKenzie's *Voyages through North America*, published in 1801, there is a map in which some coal exposures on the Red Deer River, at the mouth of the Rosebud, represent all that the traveller then knew of a field whose area is now estimated at 16,218 square miles. Subsequent discoveries at Edmonton and on the banks of the Athabasca, Pembina, and Belly Rivers must have provided food for speculation as to the extent of the coal-bearing horizon, but in those times little beyond speculation was possible, and for over 100 years the riches thus partially indicated awaited the arrival of the railways.

It was, in fact, only in 1905, when the Canadian Pacific Railway had been completed for some years, that the output from the vast deposits began to be appreciable. Even in 1901 the total coal production of parts of the then North-West Territories, that is to say

of what is now Alberta, Saskatchewan, and Manitoba, was no more than 346,649 tons. By 1904 it had risen to 782,391 tons, but in 1906 Alberta alone produced 1,385,000 tons of anthracite, lignite, and bituminous coal, and thus an industry destined possibly to rival agriculture in importance was firmly established in the province.

The coal varies in quality according to where it is found. The mountains that constitute the southwest border of Alberta are formed mainly of rocks which originally underlaid coal-formations; these latter, as a result of internal commotion, were elevated and exposed to denudation processes which have almost caused their disappearance, but in the wide valleys there still exist rich deposits of coal, either bituminous or anthracitic, of good quality and of considerable value. Among the foothills a softer grade is found. To the north of the foothill belt is a region of coal-bearing rocks known to geologists as the Edmonton series, extending over an area of some 9,000 square miles of country none too well supplied with timber. The coal found here is lignite, suitable for domestic use. In the southeast, around Lethbridge and Medicine Hat, there exists a deposit of lignite, harder and heavier than that of the Edmonton district, estimated to extend over 5,000 square miles.

It is of interest to note the way in which the Rocky Mountains of Alberta have influenced the quality of the coal in their neighbourhood. The mineral is of the same geological age over the whole area from the mountains to Manitoba, but where the heat,

pressure, and shearing action of the mountains are most strongly exerted the process of hardening and devolatilizing has been greatly accelerated. Thus anthracite is found in the Bankhead district, bituminous and hard lignite in the Crow's Nest Pass, and somewhat softer lignite east of Lethbridge, whereas in Manitoba, much further east, the deposit is little better than peat.

It is calculated that the known coal-formations of Alberta contain not much less than one hundred thousand million tons of coal of all grades, and that most of it is accessible without difficulty. Up to the present there is scarcely a mine that goes below water-level, and in many regions the rock-formation is especially favourable to mining, seams of 4 to 12 feet in thickness being struck at depths varying from 20 to 100 feet. Again, the outcroppings on river banks, which are common from the Peace River southwards, are worked with almost ridiculous ease.

In 1906 the coal mined in Alberta amounted, as already stated, to 1,385,000 tons. It was about this time that the general progress of the province began to be particularly noticeable; the population was rapidly increasing, railway extension was active, and the manufacturing industries which were starting also needed coal. For the next three years the output increased steadily, and in 1910, with a jump of nearly a million tons, it had passed the three-million-tons mark, which means an output of 8,000 or 9,000 tons a day—a respectable figure for an industry barely ten years old. It was fully expected that the production in 1911 would show an even greater

rate of augmentation, but unfortunately a protracted general strike, beginning in April, rendered this improbable, though a settlement was arrived at in October.

Up to 1910, however, the details of the output, as given below, clearly demonstrate the progress and importance of coal-mining in Alberta under normal conditions :

	1907	1908	1909	1910
Lignite . .	639,335	584,334	763,673	878,011
Bituminous	939,295	1,011,571	1,197,399	1,896,757
Anthracite .	256,115	249,095	413,257	261,785
Tons	1,834,745	1,845,000	2,374,329	3,036,553

To the 1910 output 154 mines contributed, 42 of them being opened that year. On an average they employed, above and below ground, about 7,000 workers.

At the present time the principal coal-mining centres of Alberta are the districts around Bankhead and Canmore, in the Rocky Mountains ; the Crow's Nest Pass, south of these ; Lethbridge, east of the Crow's Nest Pass ; Medicine Hat, east of Lethbridge ; and Edmonton in Central Alberta. Of particular interest are the thriving infant townships of ' The Pass ' as the Alberta portion of the Crow's Nest Pass is known in the West. Coleman is the principal town, with 2,500 inhabitants. Its history, typical of all the towns of the Pass, began with the acquisition of the town site about eight years ago by the International Coal and Coke Company, whose seventh

annual report, recently published, showed net profits for the year under review of \$300,097. In 1903 Coleman was wooded prairie above and coal seams beneath ; in 1904 it had banking and business houses, two hotels, and a population of 500. By 1905 electric light, the telephone, and a really good water system had been installed, and the company's mine plant included a tippie with a daily capacity of 2,000 tons, a battery of 100 coke ovens, and a large power-house. Next year it had a miners' hospital, and its streets, in which it takes especial pride, had been carefully graded and gravelled. To-day, standing in the midst of fine mountain scenery, it is at once a beautiful and a busy ' town with a future '. The Denison collieries in Coleman have an average daily output of 2,500 tons of coal, mainly taken by the Canadian Pacific Railway for use on their trains, and a coking plant with a capacity of 8,000 tons of coke per month. The equipment is modern and excellent ; the coal is brought out of the mines in trains of sixty or more cars, hauled by compound compressed-air locomotives, and is passed through one of the best-equipped separating plants in North America.

Blairmore is another town of the Pass which contrives to be clean and pretty in spite of its principal industry, and which will shortly add an opera house to its attractions. In Blairmore the chief colliery concern mines about 1,000 tons daily and is preparing to double its output, while there are nine other working collieries within a radius of eight miles. Blairmore, the first settlement in the Pass,

is situated in Old Man's Valley, and the Old Man's River flows through the town. Coal outcrops from the valley-level to the summits of the surrounding mountains, and mining conditions could not well be better.

A mile and a half from Blairmore is Frank, the historic town of the Pass. Frank, named after its founder, a wealthy United States mine-owner, had a few years ago to cope with a great disaster, which tested the mettle of the townsmen. In May 1902 the Canadian-American Coal Company started mining operations on land abutting on the eastern slope of Turtle Mountain, and by the following December the Company was producing 1,000 tons a day. In April 1903 a landslide occurred which buried the only tunnel under many thousands of tons of rock, destroyed the mine plant, and covered some two miles of the Canadian Pacific railroad, as far as the neighbouring township of Lille. But within fifteen days the road was rebuilt, and in twenty days it was again open to traffic, while within a period of thirty days the mine was reopened, and very shortly afterwards, having in the meantime been entirely reconstructed, it was producing at a greater rate than before.

In the district around Edmonton some thirty or forty mines are in active operation, but no details of their output are available. Recent prospecting in the country between Edmonton and the Rocky Mountains has resulted in the discovery of many new and valuable coal seams, more especially in the vicinity of the Brazeau River, and when the Canadian

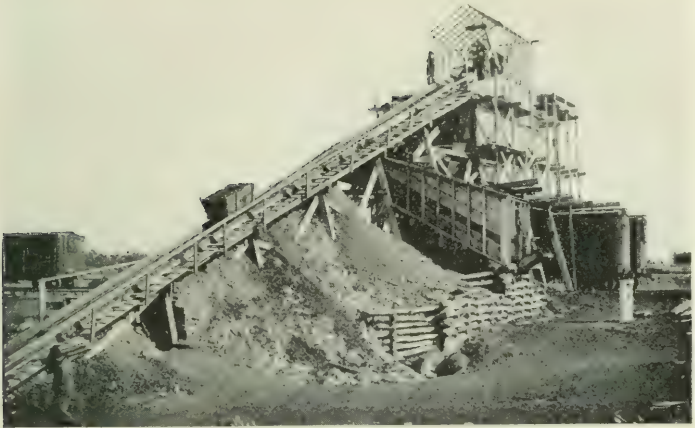
Northern and the Grand Trunk Pacific railways reach the Yellowhead Pass they will have opened up a district rich in good steam coal.

Lethbridge is the centre of a group of important coal-mining districts. The Galt mines, the first to be opened in Southern Alberta (one of which is illustrated on Pl. VI), have a capacity of over 3,000 tons daily, and are at present yielding about half that amount. A shaft sunk during 1910, for a new mine which is still in the development stage, is the largest soft-coal shaft in America, and can deal with 2,000 tons in a shift of ten hours. There are many smaller mines quite close to Lethbridge, with outputs varying from 75 to 200 tons a day, but with capacities for very much more.

Practically all the anthracite that figures in the output statistics of Albertan coal-mines is mined at Bankhead. It is an excellent fuel for domestic purposes, and is in great demand as far west as Vancouver. The slack is made into briquettes, of which 109,000 tons were manufactured in 1910.

Labour in Albertan coal-mines is controlled, to the extent of about 85 per cent. of the miners occupied, by the United Mine Workers of America. About half of the men are English-speaking, the greater part of the balance being known by the generic name of Slavs—a designation, however, which does not please them. All are good citizens, and good workers when their trade union permits them to be employed; many of them can earn from \$5 to \$7 per day and are able to live comfortably on \$2 per diem, except perhaps in the Crow's Nest Pass,

PLATE VI



PRIMITIVE COAL-MINE, EDMONTON DISTRICT



GALT MINE, NO. 3, LETHBRIDGE

where living is more costly. The lowest wage is \$2.75, and it was on account of the men paid at this rate that the 1911 strike—the fourth in the last ten years—commenced. An increase of 15 per cent. was demanded ; the companies replied with an offer of 5 per cent., and thus the matter stood for some eight months, involving some 6,000 unionists and 1,000 non-unionists, when the Minister of the Interior intervened. As a result, an agreement, granting an increase of 10 per cent. in the wages paid, and recognizing the 'check off' system, was signed in October 1911 to cover a term of three years, and there appears to be no doubt that the settlement is satisfactory.

Though scarcely a mining operation, boring for natural gas, an industry of considerable importance, may perhaps be alluded to here. One large company owns eight wells : five at Bow Island and one each at Brooks, Dunmore, and Bassano, yielding gas at the rate of 68,000,000 cubic feet in twenty-four hours. The working of these and similar wells is inexpensive and simple : no compressing plant is required, the initial pressure of the gas (averaging 750 lb. to the square inch) being sufficient to carry it through pipes for a considerable distance. In fact, the same concern is arranging to supply the cities of Calgary and Lethbridge, each about 80 miles from the sites of its wells, with light, heat, and power at the rate of about 20 cents per 1,000 cubic feet of gas. The value of the gas retailed to customers in 1910 by this and other companies was approximately \$1,600,000, and it is estimated that

during 1911 natural gas worth at least \$2,000,000 will have been produced.

The mining regulations of the Dominion, though liberal, have been framed with a view to securing as much active exploitation of the land as may reasonably be expected. At the same time they seek to discourage monopoly and land-speculation. Coal lands may be leased at the rate of \$1 per acre for 21 years, a royalty of 5 cents per ton being collected on the coal mined, but the largest area that may be leased to one person or corporation is 2,500 acres. This regulation is designed to benefit settlers, who are further protected against fuel shortage by the law which compels mine-owners to supply them with coal for their own use at the rate of \$1.75 per ton at the pit-head.

The prospector for gold, platinum, silver, lead, and zinc may stake an area 1,600 feet square and record his claim at the nearest Dominion Land Office, the fee for location being \$5. If there are five or more prospectors in a field they may elect one of their number as provisional recorder. On every claim the sum of \$100 must be spent each year for 5 years, after which the claim may be purchased at \$5 per acre, subject to a royalty of $2\frac{1}{2}$ per cent. on the output. The regulations governing iron and copper claims are similar, except that an area of 160 acres may be located.

CHAPTER IX

MEANS OF COMMUNICATION

THE progress of Alberta in the matter of the means of communication may be summed up in the words 'exchange of trails for rails'. Probably the earliest of all trails in the West were those made by the herds of buffalo as they stampeded across their ranges in search of water, or from the water to the best feeding-places, for the easiest fording-places on the rivers are always to be found by following the most clearly defined buffalo trails.

Then came the Indians and their trails, and following them the traders and the half-breeds, and many are the stories that still linger around some of the more famous trails in the West—the 'old Saskatch', for instance, which led clear across the prairies from Edmonton to Winnipeg, crossing the Saskatchewan River twice and passing Forts Carleton and Pitt; the Fort Benton, which, striking north from the little town of that name on the Missouri River in Montana across the International Boundary, passed through Macleod and up to Calgary, where it joined the Calgary trail, and, trending always northwards, merged beyond Edmonton into the trail to Athabasca Landing; the Jasper, a trail more than one

hundred years old, which ran from Edmonton West through the Yellowhead Pass to Jasper House, and was used by the Hudson's Bay men when they carried buffalo meat to the miners in British Columbia, returning with hides ; the Lesser Slave Lake Trail, employed mostly by Indians and missionaries, however, and not so much by traders ; and many minor trails. Generally speaking, these routes showed the line of least resistance, and in later days some of them were surveyed and converted into roads or had railways built alongside them, though others again have fallen almost completely into disuse. So rapid has been the transition that many people still living in the province can call to mind the vision of long lines of Red River carts, built entirely of wood, hub, spokes, rim, tyre, and all, creaking their springless way in single file over the old trails.

Until about 1860 the North-West still remained *terra incognita*, only regarded as the home of the wandering Indian, the pasturage of the buffalo, and the fur preserve of the Hudson's Bay Company, but from that time onwards a general interest in the country began to make itself felt. Communication between the Eastern provinces and the Red River settlement was opened up ; and in 1871 a *reconnaissance* of the country lying west of the Great Lakes was made, at the instance of the Dominion Government, to ascertain the possibility of constructing a railway to the Pacific coast. It would be impossible to tell of all the difficulties and vicissitudes encountered by the different engineering parties in the

prosecution of the work entrusted to them, but the Canadian Pacific Railway—probably the largest and wealthiest corporation of its kind in the world, and certainly unique as an immigration and colonization agency—remains as a lasting monument to Canadian enterprise and patriotism.

First passing through Southern Alberta less than a quarter of a century ago, it has done more to develop that part of the province than anything else could possibly have done, nor are its energies less remarkable or less strenuous in these days. In the north, where the country is equally fertile and singularly well adapted for mixed farming, two more transcontinental roads are now being rapidly pushed ahead, which in ten or fifteen years will change the face of the country ; indeed, to use the language of Sir Wilfrid Laurier, the Grand Trunk Pacific and the Canadian Northern have rolled back the map of Canada two hundred miles, while the proposed route to the Peace River and Pine Pass, with the Hudson's Bay Railway, will throw the horizon back another hundred miles.

When these lines are completed Alberta will be within easy distance of tidal water both on the Atlantic and Pacific coasts, and will be in a position to realize the immense possibilities which were predicted concerning her by the British Association for the Advancement of Science at their Winnipeg meeting in 1909. Even now settlement is spreading rapidly in all directions ; new towns are springing up, and the land is being tilled and cropped, while

in the matter of early frosts and other climatic disturbances history will surely repeat itself, and these will be eliminated in Northern Alberta by advancing cultivation just as they were in Manitoba, where in the early days frosts were dreaded, but where now they are practically unknown.

At the end of 1910, according to official statistics furnished to the writer by the Dominion Government at Ottawa, there were 1,774 miles of railways in the province, made up as follows :

<i>Railways</i>	<i>Miles</i>
Canadian Pacific Railway . .	1,270
Canadian Northern Railway . .	219
Grand Trunk Pacific Railway . .	285
	<u>1,774</u>

as against 1,200 miles in 1906, and 807 in 1893, when the country now known as Alberta was part of the North-West Territories. During the six years from 1893 until 1898 no railways were built. In 1899-1900 the mileage grew to 908 ; during the three succeeding years it amounted to 978 miles ; then for two years (1904-5) it stood at 1,020 miles ; while from 1907 to 1909 the official figures are given as 1,323 miles. For 1911, the following statement, showing the mileage of steam railways already completed in the province, as well as the lines nearing completion on which track will have been laid by the end of that year, was, at the request of Premier Sifton, specially prepared in Edmonton, during September 1911, by the Provincial Railway Engineer for the writer :

CANADIAN PACIFIC RAILWAY :

Section of main transcontinental line from Montreal to Vancouver passing through Alberta	334 miles	
Crow's Nest Line	210 "	
Calgary and Edmonton Branch	192 "	
Lacombe-Moose Jaw Branch	180 "	
Wetaskiwin-Winnipeg Branch (Alberta Section)	162 "	
Calgary-Macleod Branch	108 "	
Kipp-Aldersyde Branch	94 "	
Alberta Railway and Irrigation Branch	111 "	
Langdon-Acme Branch	61 "	
Irricana Branch	18 "	
Mine Branches	36 "	
	<hr/>	1,506 miles

CANADIAN NORTHERN RAILWAY :

Section of main transcontinental line (in Alberta) east of Edmonton	169 miles	
Section of main transcontinental line (in Alberta) west of Edmonton	162 "	
Vegreville-Calgary Branch	258 "	
Stettler-Brazeau Branch	148 "	
Edmonton-Athabasca Landing	97 "	
Strathcona-Camrose Branch	44 "	
Peace River Branch	40 "	
Stony Plain Branch	21 "	
Edmonton, Yukon, and Pacific	5 "	
	<hr/>	944 miles

GRAND TRUNK PACIFIC :

Section of main transcontinental line from Moncton to Prince Rupert (passing through Alberta)	440 miles	
Tofield-Calgary Branch	201 "	
Alberta Coal Branch	65 "	
	<hr/>	706 miles

ALBERTA CENTRAL RAILWAY :

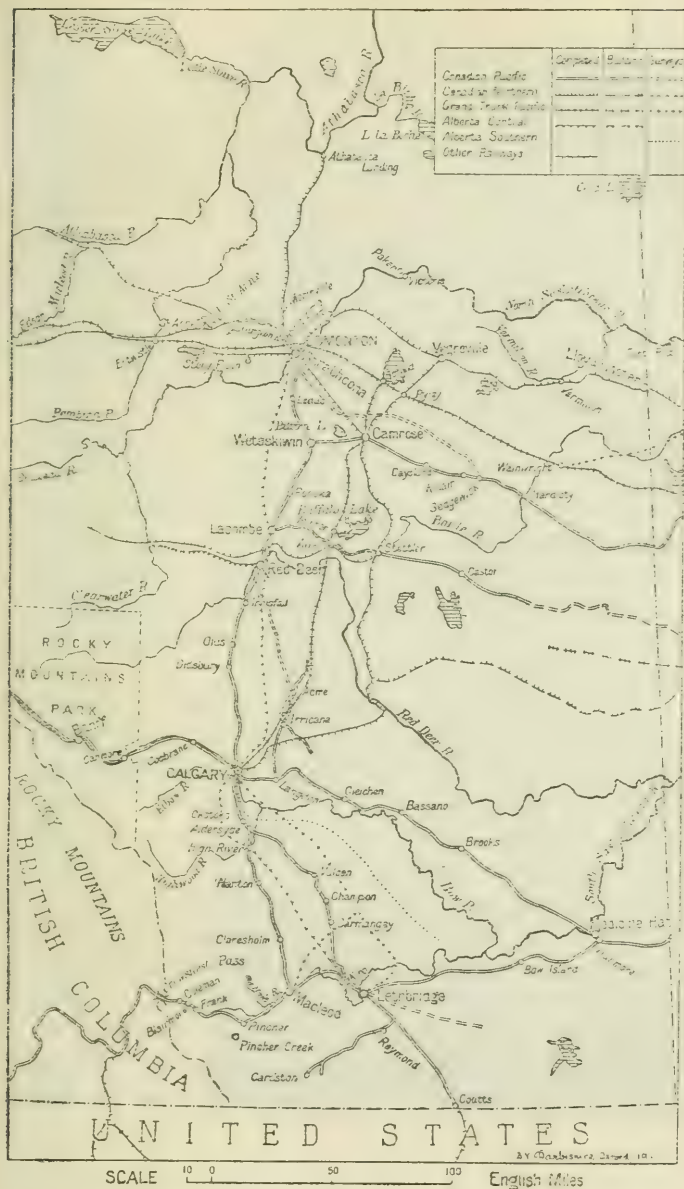
destined to run from Moose Jaw to the Yellowhead Pass	40 miles	40 miles
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Total mileage for the province 3,196 miles

These figures, however, can only be regarded as approximate, since, as explained at the time they were prepared, unfavourable weather conditions might retard the progress of track-laying on some of the lines, thus delaying completion beyond December 31; while on the other hand, with favourable weather conditions work might be sufficiently far advanced to increase the figures given by 50 or even 100 miles. It should be admitted also that in any event the above statement is less conservative than the individual estimates kindly furnished by the three railway companies of their year's programme of construction work, which only serves to show once more how difficult it is, in a province forging ahead as rapidly as Alberta is doing, to compile accurate statistics.

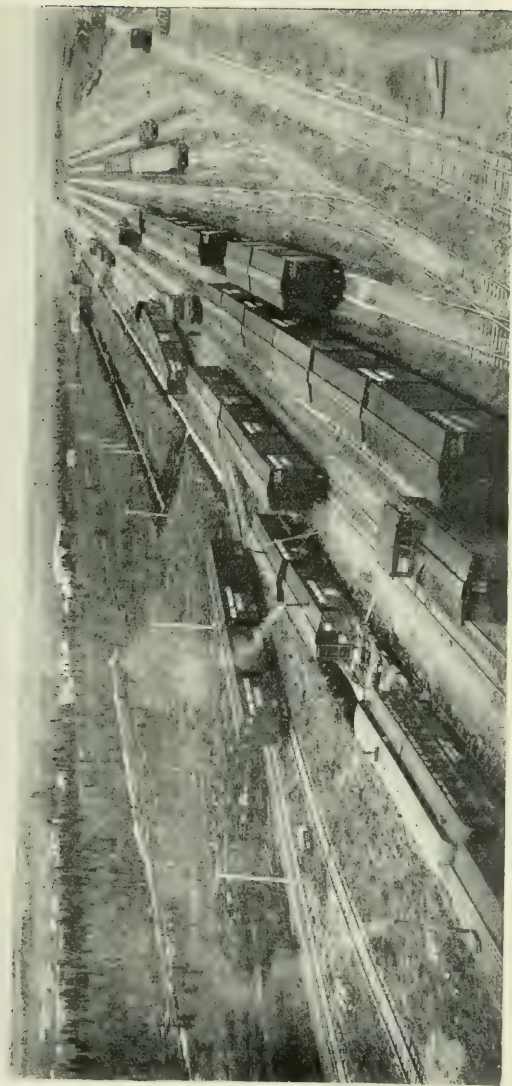
The railway policy of Alberta has always been a liberal one, aiming to benefit all parts of the province, but such railway facilities as are already available undoubtedly still fall far short of the needs of the people, this lack being due in great measure to the continued influx of settlers and the consequent rapid development of the land. Even yet there are many districts in Alberta where transportation facilities are urgently needed, though in fairness it should be admitted that everything possible is being done to afford such facilities without undue delay. At one time the question of State ownership was considered by the Government, and was also discussed by the people, but it has never been advocated seriously, for Alberta is an inland province, and its railways must necessarily be local lines. At

MAP OF ALBERTA: RAILWAYS



the same time, in order to encourage railway companies to build new lines in the more remote parts of the province, the Government guarantees the bonds of such companies so that capital may be secured and safeguarded, and in this way the bonds of two of the transcontinental companies, namely the Canadian Northern and the Grand Trunk Pacific, who are doing a considerable amount of railway construction in Alberta, were in the 1909 session of the Legislative Assembly guaranteed by the Provincial Government to the extent of \$13,000 a mile, the rate of interest being 4 per cent. As security, a first mortgage was given on the lines guaranteed, as well as on their rolling-stock, the equipment, present and future, acquired or to be acquired for the purposes of the lines, and the tolls, revenue, and income arising from or to arise from the lines guaranteed, in addition to all the rights, privileges, and franchises of the companies.

The Grand Trunk Pacific passes through a district which is claimed to be ideal for the growing of crops, while a sufficient supply of good water for domestic purposes, as also of excellent coal at comparatively low prices, is obtainable practically throughout the entire territory served by its lines. Wood is said to be more abundant there than in any other locality of the prairie section of Western Canada, for with the opening of the Grand Trunk Pacific to the McLeod River in Alberta, a good timber country has been reached, affording to settlers a plentiful and cheap supply of building timber and lumber. The illustration on Pl. VII



RAILWAY TRACKS AT EDSON (A GROWING TOWN), GRAND TRUNK PACIFIC

shows the growth of a town in three months from the time the 'head of steel' reached it. For the size of the town the tracks appear numerous, but to the south of Edson a vast coal-field is to be opened up, and a heavy output is anticipated.

The Canadian Northern Railway lies still further north than the Grand Trunk Pacific, and taps an equally productive country, while its line from Vegreville through Camrose and Stettler south to Calgary follows first the wide and fertile Vermilion valley and subsequently traverses a remarkable dairying country, which is also perhaps one of the finest sections of all Alberta for shooting. The country is composed of round buttes and circular lakes, and these lakes, which in some places number fifty or more to the section, are deep, clear bodies of water, beautifully bordered with willows, on which large flocks of water-fowl congregate.

The completion of these two transcontinental railways to the Pacific coast will, it is anticipated, considerably influence the growth and development of traffic in Western Canada, especially in Alberta and British Columbia, and there would appear to be no question but that, with the completion of the Panamá Canal, much of the great grain traffic, that of the Foothill Province in particular, will flow through the Yellowhead Pass in search of the shortest mileage and the easiest grades. For more than twenty years Fort William has been the wheat market of the Canadian West. The average cost of hauling grain from Alberta to Fort William is 25 cents per 100 lb.; from Fort William to

St. Johns by an all-rail route another 25 cents is charged ; and from St. Johns to Liverpool 6 cents, or a total of 56 cents ; and the railways are anxious to move east, without loss of time, every bushel of grain possible, because they are conveying it to a port which closes about December 10 in each year. The direct result of the long haul from Alberta to the head of the Great Lakes is that Albertan grain is frequently not shipped until after the close of navigation, thereby causing the price to drop by just the amount the all-rail route exceeds the rail and lake route, a matter of some 5 or 6 cents a bushel.

The present rate from Alberta to Vancouver, an open port at all times, is $22\frac{1}{2}$ cents, and from Vancouver to Liverpool the same, making a difference of 11 cents per 100 lb. in favour of the western route from Alberta. At present, however, the conditions on this route are not favourable, for besides the steep grade in the mountain pass used by the Canadian Pacific Railway, and the lack of elevator and shipping facilities at Vancouver, there are only three lines of steamships from Vancouver to Europe, if a line of boats going down the Pacific coast to Panamá and connecting across the Isthmus with a line to Liverpool be excluded. When the Panamá Canal is opened it is reasonable to expect that, with competition, freight rates will be greatly reduced, and with a short rail-haul of 600 miles to an open port on the Pacific coast, equipped with terminal elevators as in those days Vancouver will be, Alberta shipments will be enabled to reach Liverpool at all times of the year, while Western shippers will be

equally well able to take advantage of the South African and Oriental markets whenever they offer better prices than Liverpool.

Generally speaking the local passenger fares in Alberta are fixed on the basis of 3 cents per mile, except in what are known as the mountain sections of the railways, where the basis is 4 cents per mile. Regular 'round trip' fares (in other words, return fares) are made on the basis of one fare and two-thirds, which works out at about $2\frac{1}{2}$ cents per mile. The reduction given on general holidays, such as Dominion Day, Labour Day, Thanksgiving Day, Christmas, New Year, and Easter, results in a fare and one-third being charged for the double journey, while reductions are also made in connexion with a large number of conventions held locally, as well as for journeys to points east and west. An unusually low 'round trip' rate is authorized to places in Eastern Canada, and to Atlantic seaports, to accommodate people returning to the 'Old Country' for Christmas and the New Year. Commercial travellers' fares are made on the basis of $2\frac{1}{4}$ cents per mile, with a free allowance of 300 lb. of baggage. General party fares are also granted; for example, a party of ten or more travelling together can secure tickets at the rate of one fare and one-third each for the round trip. For transcontinental journeys, the rate is 2 cents per mile, while to land-seekers a very low rate is quoted.

It is customary for every one to travel 'first class' on the local trains in the province, though if superior accommodation is desired, it is to be found

in the ' parlour cars ' on payment of 25 cents over and above the first-class fare for each 50 miles travelled. On the main-line trains the travelling is luxurious, and proportionately expensive, for only holders of first-class tickets can travel in a Pullman, or as it is known in Canada, a ' standard ' sleeper ; a seat in the latter costing an additional $\frac{8}{10}$ ths of a cent per mile, with a minimum fare of \$1.50 for a lower berth and \$1.25 for an upper one. The berths are wide and comfortable, the curtains, blankets, and linen being of the finest quality, while on such trains as have observation cars attached to them writing paper and ink, magazines and books are provided for the use and amusement of ' Pullman ' passengers.

Less luxurious as to fittings, but almost equally comfortable as to accommodation, are the tourist sleepers, at practically half the cost of the Pullman, the minimum charge in this case being \$1 for either a lower or an upper berth. On the tourist sleepers a small kitchen fitted with a range is provided, so that passengers who do not wish or who cannot afford to have their meals in the dining-car can make tea and coffee, or do light cooking for themselves—a distinct economy in the case of family parties, or friends not too well endowed with this world's goods, who are travelling together, while the tedium of several days on the train is lightened by these ' picnic ' meals, rendered possible by the thoughtful provision in this respect of the railway companies. The sleeping accommodation is excellent, and there are porters in the tourist cars as courteous and obliging as are those in the Pullmans.

For passengers who are still less fortunate there remain the colonist cars, arranged with upper and lower berths on the same principle as the 'standard' and tourist sleepers, but, unlike them, not furnished with bedding. This however, if desired, is obtainable in Quebec, and other centres from which immigrants make their start across the Continent, at a very nominal charge, \$2.50 providing all that is necessary in the way of mattress, pillow, &c.; for several nights on the train. On the colonist as on the tourist cars kitchen ranges are fitted, and fuel is supplied; for a railway journey in Canada is generally a protracted affair, and, as has been shown, it becomes necessary both to eat and to sleep on the train. It should perhaps be added that in the Pullman car a tip to the 'darkie' porter of at least 25 cents for each night on the train is customary, but when it is remembered that he has overnight made up the bed, and in the morning has dismantled it, besides cleaning the passenger's shoes and brushing his clothes, this tip cannot be considered altogether exorbitant.

In the West, as in America generally, luggage is spoken of as 'baggage', and your suit case or portmanteau becomes a 'grip', very often to be carried by yourself, for porters are seldom available, especially at roadside stations, though if you are a woman, there is usually some good-natured man willing to give you a hand. All heavy baggage is checked through to your destination at the time when the ticket is bought, thereby saving trouble. Individual checks are issued against each piece, and these are

collected when the baggage is claimed ; on the whole the checking system works admirably, while it certainly does much to simplify travelling.

The Constitution of Canada gives her Parliament practically unlimited powers over the railway companies, and these powers are delegated to and wielded by an organization known as the Railway Commission. This Commission can, for instance, intimate to any of the railway companies the manner in which shipments shall be classified, the way in which cars shall be loaded, the number of men that must be employed to a given number of cars, and the number of hours the employees shall work in a day. It can dictate, provisionally to the Canadian Pacific Railway and unprovisionally to the other companies, as to the freight and passenger rates they may charge throughout their systems, and the equipment of their rolling-stock with safety appliances and the like. Upon complaint that a bridge or a level-crossing is unsafe, or that a shipper cannot obtain cars for his grain, the Commission can compel the company or companies concerned to build another bridge, to attend to the matter of the level-crossing, and to satisfy the shipper's demand, if the complaints appear to be well-founded. For violation of its orders or disregard of its decisions the Commission is empowered to inflict a fine or penalty.

In short, the Commission exists to correct or prevent railway abuses ; it controls the huge railway corporations, as these in turn control the railway situation in Canada, and its work has been, and is, supremely effective. The companies can appeal, on

a question of fact, to the Governor-in-Council ; in matters of law (by favour of the Commission) and in matters of right (but only upon alleging that the Commission has proceeded *ultra vires*) to the Supreme Court ; yet up to the end of the fiscal year 1909-10 not one in a thousand such appeals had been successful. It is not to be assumed that, relieved of the supervision of the Commission, a company with the reputation and record of the Canadian Pacific (for instance) would cease to be a good servant to the Canadian public and become a bad master, but it is obvious why, for so vast a concern, extra external control should in the public interest be considered desirable.

If it is true that people in these days cannot be happy and progressive without such necessary adjuncts to twentieth-century civilization as roads, bridges, and telephones, the people of Alberta should be happy indeed. In no other department of the civil administration of the province has there been more striking evidence of the earnest desire of the Government to meet the country's requirements than in the Department of Public Works. Because of the steady influx of population, and the consequent rapid extension of settlement, the need in a new province for public improvements is insistent and steady, taxing such resources as are available to their utmost limit. In this connexion it is interesting to note, as showing the spread of settlement, that in 1910 the Government survey parties extended further into the northern part of the province than they had ever done before. Some of them spent the

whole season surveying the main trail from Athabasca Landing to Peace River Crossing, and were out on the work, which consisted chiefly of surveys of old trails that had been partially improved (because a right of way had already been cleared) from May to December. During the first three years of its existence the Government built close on 800 timber and 60 steel bridges, besides repairing others and cutting out and improving many hundreds of miles of main and side roads. In 1910, however, comparatively few new steel bridges were built, but 271 timber structures were erected, and 76 existing ones were repaired. In addition to bridges, there were 42 ferries in operation during the same year (1910) in various parts of the province, for though it is impossible for the Government with such funds as are at their disposal to construct all the bridges required at once, they endeavour as far as possible to meet the traffic demands by installing ferries as a first means of satisfying existing and growing requirements.

The Provincial Department of Public Works also controls and administers the entire telephone system throughout Alberta, that province having been the pioneer in the public operation of telephones in Canada. The following information, derived from a statement kindly furnished to the writer by the Department concerned, is interesting as showing the growth and progress of the system during 1910. As the total expenses for operation and maintenance in that year were only \$287,203, while the total revenue from rentals, tolls, &c., for the same period

was \$364,145, resulting in a net profit of \$76,942, it will be seen that the Government have made a very satisfactory bargain :

	1909	1910
Total mileage of long distance lines . . .	2,392	3,152
Total mileage of rural lines	1,537	2,963
Total number of city and town exchanges	58	63
Total number of rural exchanges	23	34
Total number of Toll Offices	108	138
Total number of exchange subscribers	6,176	8,090
Total number of rural subscribers . . .	<u>1,317</u> = 7,493	<u>2,481</u> = 10,571

The demand for telephones during the year was phenomenal, especially in Calgary, though in Lethbridge, Medicine Hat, Strathcona, Camrose, and Castor, the telephone branch had also to use every effort to keep pace with the constant development. Finally the last link—the extension of the Lethbridge-Taber line to Medicine Hat—connecting all the extreme points of the province, from Edmonton in the north to Cardston in the south, and from Medicine Hat in the east to Blairmore and Banff in the west, was completed, and as the subscription rates are very reasonable, the telephone is rapidly becoming ubiquitous throughout Alberta. Increasing numbers of settlers are thus able, without leaving home, to order provisions from town, to summon the doctor when there is illness in the house, and

to chat at large with their neighbours, no matter though they may be scores of miles apart. It has undoubtedly already been a great factor in putting the country in touch with the town and city, and has done much to weld agricultural communities into closer social contact.

CHAPTER X

THE CAPITAL CITY—EDMONTON

EDMONTON is a city with a past, for it was founded as an outpost of the North-West Company of Montreal at the end of the eighteenth century. Later the Hudson's Bay Company, which had seen its flank turned, as it were, to the northward by the enterprise of its rival on the McKenzie and the Peace rivers, also established a station there, to which the trappers brought their furs, and where they provided themselves with pemmican, for Edmonton thus early possessed a distributing trade—the nurse-ling of the Saskatchewan River.

Later on, as has been shown in Chapter I, the two great trading Companies amalgamated, and Edmonton grew in importance as a collecting station for furs to be dispatched to Fort Garry, now Winnipeg. Moreover, some of the servants of the Company began to take up land in the vicinity, and thus the settlement acquired an independent existence and interests of its own. Of the early period of its history Edmonton still possesses a memorial in the shape of the now dismantled fort of the Hudson's Bay Company, which could tell strange tales of fights between the Blackfeet and the Crees, for the Indians used to meet there and quarrel while disposing of their furs to the white

traders ; nor did these last always live together in peace and brotherhood.

In process of time, however, the causes of turbulence disappeared ; one source of discord was removed by the union of the two companies, and the establishment of Rocky Mountain House drew away the Blackfeet, so that Edmonton was left to the Crees. For some years the place led a quiet existence ; then came rumours that the much-talked-of transcontinental railroad was to pass through it, and a land boom resulted which, of course, collapsed when the Canadian Pacific Line was built to the southward. The next epoch in the history of Edmonton was associated with the discovery of gold in the Klondyke, when the town became the outfitting centre for the hundreds of miners who undertook the overland journey. In this way it was made known to the world at large, just at the critical period when the Dominion Government was beginning to open up the West.

Thenceforward its growth was rapid and inevitable : in 1904 it took rank as a city, and in the following year it was made the capital of the Province of Alberta, the event being celebrated by the visit of His Excellency Earl Grey and Sir Wilfrid Laurier. Four years later, on his second visit to Edmonton, Lord Grey laid the foundation stone of the Provincial Parliament Buildings, to be erected at a cost of \$1,250,000. These are now rapidly assuming shape on a picturesque site on the banks of the Saskatchewan River, overlooking the old fort which still stands thirty feet or more below. It is

expected that part of the Buildings will be sufficiently far advanced to permit of the Legislative Assembly holding their 1911-12 session within its walls, and when the works are entirely finished Edmonton will have cause to be proud of her Parliament House.

On the opposite bank of the Saskatchewan the Provincial University has been established, and mention must also be made of the magnificent high-level bridge, at present in course of construction by the Canadian Pacific Railway, joining up what were until recently known as the 'twin cities' of Edmonton and Strathcona, facing each other across the river.

Unhampered by the slow growth of vested interest, Edmonton has been able to adopt whatever municipal institutions it pleased. It was, therefore, in the nature of things that so young a community should decide for the system which was most modern, and we find without surprise that the town owns its waterworks and street railways, and also its electric light and telephone plant. Edmonton, moreover, was the first municipality in Canada to adopt the principle of basing its assessments on land values, taxation being computed on the full market values of the land, without regard to the buildings, machinery, and so forth thereon. This method, it is claimed, is a great improvement on the older system under which the speculator, who had done nothing to increase the utility of his holding, profited at the expense of the resident who was developing the city.

Quite recently an event of great importance to the expansion of the city has taken place. A proposal for the union of Edmonton on the north side of the Saskatchewan with Strathcona on the south was submitted on September 26, 1911, to the ratepayers of the two cities and accepted by them. There is no reason to doubt that the Provincial Legislature will act upon this expression of opinion, and that Edmonton—for that name is to be preserved—will shortly be a city of over thirty thousand inhabitants.

Strathcona, which was incorporated as a city in 1907, possessed in 1911 a population of 5,580. Its chief claim to distinction is its University, to which reference has already been made, and which should cause it to become the educational capital of the province of Alberta. Situated as it is in the heart of one of the best lignite coal areas in the West, Edmonton was bound to grow in importance as soon as it became a railway centre. With the improvement in communications, conditions of life in the twin cities became identical, and it would have been a waste of energy on the part of their citizens to encourage further rivalry between them.

Already a large lumber trade has been developed in the district, and it is anticipated that before long advantage will be taken of the fact that pulp timber abounds in places from which it can be floated down the Saskatchewan to Edmonton. Other thriving businesses include meat-packing yards, saw mills, brickyards, breweries, bottling works, iron foundries, flour mills, cigar, clothing, and tent factories, and

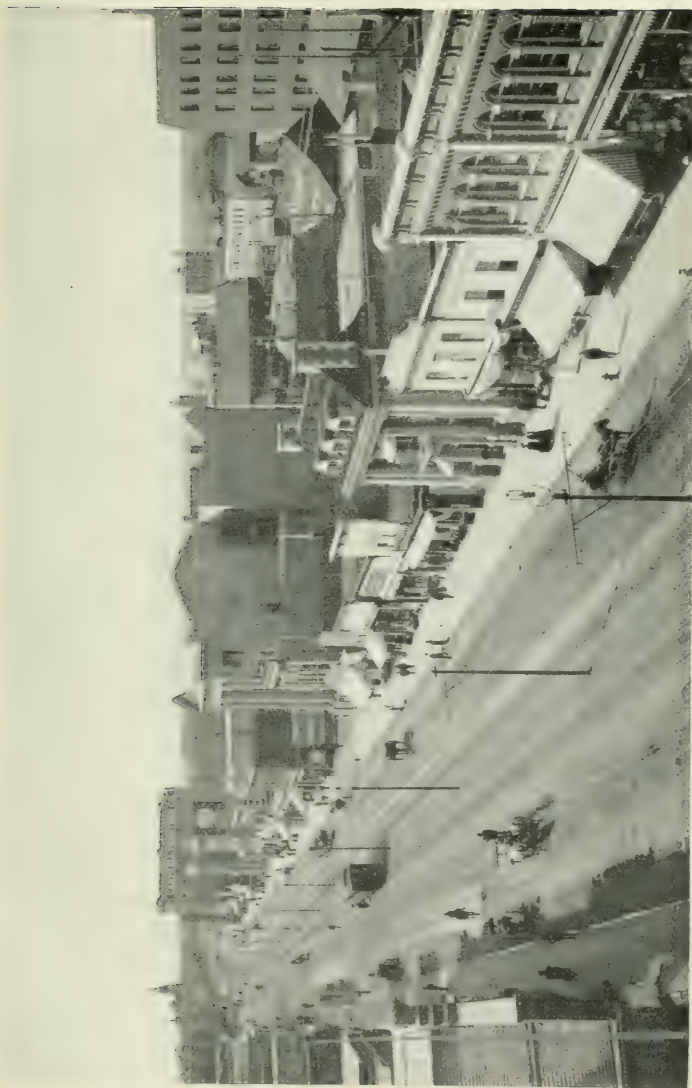
establishments for making agricultural implements. Perhaps, however, the most suggestive indication of the growth of the city is to be obtained from the bulletins issued by the Edmonton Board of Trade. The following table shows the progress made in one year :

	<i>August</i> 1910	<i>August</i> 1911	<i>Increase</i>
	\$	\$	per cent.
Customs Returns . .	32,811	62,104	89½
Building Permits . .	133,900	611,440	356
Bank Clearings . . .	6,279,604	9,543,495	52
Post Office (stamps only)	6,184	9,625	55½
Street Railway:			
Passengers carried .	389,639	663,242	20
Revenue	17,059	27,708	62
Homestead entries . .	478	578	21

The true Westerner lives as much in the future as the enthusiastic archaeologist does in the past. The latter can construct a living picture of a city of antiquity by a study of its exhumed ruins, whilst the former can link up streets and avenues and big buildings 'at intervals' into one majestic whole—the vision of a completed city. In the case of Edmonton the very 'limitlessness' of the streets and boulevards must inevitably broaden the vision. All prairie cities and towns 'in the making' spend large sums of money in the improvement of their boulevards and avenues and in keeping the grass and trees in good condition, and the one under consideration is no exception to the rule. Edmonton already possesses many imposing and solid-looking business blocks, handsome in design and substantial

in construction, and the spires of numerous well-built churches proudly tower above the city's din, while the public schools are certainly worthy of note. The new Parliament Buildings and the fine Canadian Pacific bridge over the Saskatchewan River, already mentioned, are among the most recent architectural additions to the capital, forming further landmarks to aid in the construction of the picture of Edmonton as it will be in the future.

The progress of the city is shown in nothing so much as in the appreciation in value of 'town lots'. A popular and profitable form of investment is to buy land in the city and to erect buildings thereon. Although 676 buildings were constructed in 1910, and that number will this year be exceeded, it is practically impossible to obtain a lease of premises for any purpose, domestic or financial—indeed, it is anticipated from the expansion of trade that for many years to come the demand for all classes of buildings must exceed the supply. It is, therefore, easy to obtain rentals producing satisfactory dividends on the money invested, while an additional profit is derived from the constant and rapid increase in land values. This upward movement cannot, however, go on for ever, and the practice of buying land with borrowed money may lead to some embarrassment in the future. The loans bear interest at the rate of 8 per cent. and are advanced to an amount equal to about 40 per cent. of the present value of the property. For Westerners acquainted with the factors which hasten and retard the growth of their new cities such business may not



JASPER AVENUE, EDMONTON, 1910

be dangerous, though strangers would do well not to put implicit faith in the advertisements of land agents. But, however this may be, so energetic are the people of Alberta and so rich is their soil that no set-back is likely to have a permanent effect.

The area commercially controlled by Edmonton is claimed to be at least 200,000 square miles—more than half as much again as that of Great Britain; much of this territory is still undeveloped, but its resources are known to be immense. Of the agricultural land which must regard the town as its metropolis not more than 2 per cent. is at present under cultivation, and it is the knowledge of the business to be brought to it by crops still unsown that forces up the price of real estate in the heart of the city. Nor will the future prosperity of Edmonton depend solely upon cereals; the surrounding country is known to be rich in timber, in coal and in many kinds of minerals, and for centuries all this wealth has lain idle, awaiting the coming of the railway magnate—the fairy prince of the cities of the West.

A few years ago the goods distributed from Edmonton were brought by cart from the eastern commercial centres; under these conditions traders could not meet all the requirements of purchasers, nor could they replenish their stocks to order without long delay. Railroad freights were high and railway facilities properly so-called were non-existent. The importer at Edmonton had to pay the full charge from the east to Calgary, and an additional sum to the railroad for freight to what

was until recently Strathcona, and even then the goods had only reached the south bank of the Saskatchewan river. But the people of Edmonton had already marked out their sphere of influence—the *hinterland* for which the city was prepared to give commercial battle; and no Great Power with a precarious footing on the coast of Africa could have asserted its claims more pertinaciously. Suddenly their prospects improved; the Canadian Northern Railway Company decided to put Edmonton in direct connexion with Winnipeg; immediately the Canadian Pacific reduced its rates by way of Calgary, and to-day, with the Grand Trunk also passing through it, Edmonton is an important railway centre. What use its citizens will make of their opportunities may be inferred from the fact that at the end of the year (1908) in which the establishment of a tramway system was first suggested, the cars were actually running.

British readers will learn with pleasure that there is a strong imperial feeling in Edmonton. About forty of the representative citizens have formed a society known as The Imperial Home Re-Union Association, with a view to strengthening the bonds between the Dominion and the Mother-country. They have set about the accomplishment of this object in a practical manner, by advancing money to enable men who are doing steady work to send for their wives and children from Great Britain, and thus they will make permanent citizens of immigrants who have proved their worth. This scheme—which was suggested by an Englishman—was first

adopted in Winnipeg, and the plan is also practised in Medicine Hat. The first applicant to the Association in Edmonton was a miner who had been in the service of the same colliery company for the eighteen months he had been in the country; during this period he had been supporting a wife and three children in Scotland out of his earnings. It is obviously to the interest of a new country to make men of this type regard it as their home and not as their place of business.

The stream of immigration towards Edmonton never runs low, for it taps many sources; indeed the cosmopolitan character of the city is one of its most noticeable features. One is prepared to find several English newspapers in so energetic a community; a French weekly too, perhaps; but that it should also support two German weeklies is surprising and suggestive. The impression that Edmonton has cast its net widely is further confirmed by the list of churches; for, amongst others, it possesses Anglican, Baptist (including a German and a Russian church), Lutheran, Methodist, and Presbyterian, as well as Roman Catholic, places of worship.

Much of what has been written above would apply to Brighton or to any cosmopolitan resort of fashion, but illusions will soon be dispelled by a glance at some of the newspapers mentioned. While in Alberta in September last the writer not only read that 'In the fur catch brought down from the far north by Colin Fraser and Ben Hursel, the veteran independent fur traders, there are no less than 2,537 skins, of a total value of \$25,000', but also

met Colin Fraser. Here we are at once transported from the Marine Parade to the backwoods, and to the half-breeds and the trappers about whom we used to read in our youth. Not that those moccasin-shod heroes of early days received \$400 for a skin—the price to-day for silver fox—for the ‘pale-face’ then had only to produce a bottle of ‘fire water’ and the coveted pelt was his. Romance apart, there has been an immense rise in the price of furs; not so many years ago the marten skins and the white fox skins which to-day fetch \$8 and \$12 each were sold for 50 cents and 25 cents respectively.

In the early days, when the furs were brought down each spring from the north they were taken to the ‘Factory’ of the Hudson’s Bay Company, where the best were selected and the rest—so the story goes—were burned. ‘All the fur in the country belongs to the Company’ was the dictum of the officials in those days, and they enforced it with singular success for many years; at any rate, it was no part of the Company’s policy that its servants should acquire a taste for furs.

To sum up, Edmonton is the capital of a district where winter and spring wheat and every other kind of grain is raised; it is still the collecting station of the North-West fur trade; it is situated on a vast coal-field, and it is an important railway centre. Moreover, its citizens to-day have as firm a faith in the future development and prosperity of Edmonton and the surrounding district as had those men who built up the city and made it what it is at this stage of its history.



FURS FROM THE FAR NORTH

CHAPTER XI

THE COMMERCIAL METROPOLIS— CALGARY

'THE Procession to Calgary,' according to the printed programme, was the title of a piece of music given at a sacred concert in Calgary a few years ago, and if the compositor who blundered over 'Calvary' ever happens upon evil days he will no doubt be pensioned by his grateful townsmen—for none ever advertised so widely the progress of their beloved city; its population has increased tenfold in the last decade, and it is confidently anticipated that the 44,000 inhabitants which it can boast in 1911 will have become 200,000 in 1920.

Some sites are obviously destined to carry great cities—those of Chicago or of Sydney, for instance. Assume them to exist in an unknown and uninhabited continent, and an explorer passing above them in a balloon could not but foresee that they must always contain a certain proportion of whatever future population that continent came to possess. Our aeronaut would hardly have made such a forecast about what is now Calgary. He would have been struck, had circumstances forced him to make a descent, with the amenities of the situation—the bracing air, the bright sunshine, the clear waters of the Bow and Elbow Rivers, and the glorious

mountain background, but these rivers had no commercial importance, and Calgary in its early days could only communicate with the outer world by means of the pack-trains and bullock-wagons which passed through it.

It is near the site of Fort La Jonquière, founded by the French in 1752, and it can claim to descend from Old Bow Fort, one of the first trading-stations in the West, but it was not until 1875 that it disclosed possibilities of development. At that time it gathered round itself a floating population of fur traders and buffalo hunters, and—what was more suggestive of permanent prosperity—the Hudson's Bay Company and the Montana firm of I. G. Baker & Co. thought it expedient to open establishments. Here, too, resided a few missionaries and a detachment of the Mounted Police. But for some years Calgary was little more than a halting-place on the road to Fort Benton ; indeed, it is difficult to appreciate the complete dependence of the valley of the Bow in early days upon the supplies which reached it from Fort Benton on the south and from Edmonton on the north. There were no mineral deposits such as those found in Fernie, there was no trade to be done in timber, and there were few attractions for the commercial classes. Yet the importance of rivers to the development of the West cannot be too strongly emphasized.

The history of Winnipeg is the history of the Red River ; that of Edmonton is the history of the Saskatchewan, and it turns out upon investigation that the history of Calgary is the history of the

Bow—a river which in a country of great rivers would, however, probably recommend itself to a pioneer more on account of the clearness of its waters than because of its navigability. The Bow, however, has more than its limpidity to make it acceptable ; these many years it has been ‘ up and doing ’, so to say, to make Calgary prosperous. Navigable or not, it has done good work for the carrying trade, for, after long years of ceaseless friction, the Bow River Pass in the Rocky Mountains was hollowed out, and later the Canadian Pacific Railway Company was induced to bring its line through Calgary, and thus the prosperity of the town became assured. Calgary is called after a town in the Island of Mull, the home of Colonel Macleod of the Royal North-West Mounted Police ; the name means ‘ clear running water ’, and the choice of it may be regarded as a form of thanks to that hard-working servant of the community—the Bow River.

It had been assumed that the Canadian Pacific Railway Company would decide in favour of the route by Edmonton and the Yellowhead Pass for their line to the Pacific coast, and the few inhabitants of Calgary, acquiescing in the inevitable, had made little attempt to divert it to the southward. Thus the railway is the child of the river ; and Calgary, it may be added, is the child of the railway.

But the prosperity which commenced with the coming of the railway has been augmented by other causes. Among these must be mentioned the irrigation scheme, which has already made fertile a million acres in the immediate neighbourhood of

the city, and the consequent discovery that the soil of this part of Alberta would grow excellent wheat.

The irrigation works represent, indeed, the beneficent activity of the Canadian Pacific Railway Company from another aspect. Not content with transporting the existing produce of the country, it is prepared to increase the sources of production. In pursuit of this enlightened policy the Company, as is told in Chapter V, has spent five million dollars in irrigating land to the east of the city, and proposes to spend twelve millions more. Much is expected from this expenditure: the climate will be ameliorated for a large area around the irrigated district; the atmosphere will become more humid; the danger of summer frosts will be lessened; and the rich soil, when penetrated by a steady supply of moisture, will respond ardently to the quickening rays of the sun. Water is all that is required to make what was until recently believed to be arid land bear cereals and vegetables and fruits. In the near future Calgary will thus become the distributing centre for an ever-widening circle of agriculturists; the growth of the city itself and that of the outlying districts will act and react upon one another; in the former there will be an increase in the number of wholesale and retail houses, and thus a larger market will be provided for the produce of the latter. And, of course, the railway company will in the long run profit by the prosperity that it will have done so much to create.

In thus contemplating Calgary as it will be we have but fallen into the mode of thought of its

inhabitants, who enter upon their business transactions with an eye to the future rather than to the present. But for the moment we must hark back to Calgary as it is. The city is situated on a high plateau among the foothills of the Rocky Mountain range, and is nearly four thousand feet above sea-level; while in the matter of climate it is situated in a district highly thought of by holiday-makers, for it is only about eighty miles from Banff, perhaps the best-known pleasure resort in Alberta.

The streets are wide, and are laid out on the rectangular system that commends itself to the American continent; the streets run north and south and the avenues east and west; both are numbered in accordance with a logical scheme, as are also the houses, and thus each address contains by implication its own latitude and longitude. The Calgarian who arrived in London and told his cabman to drive to 'George Street' would consider that the Londoner, with some dozen streets of that name, showed little imagination and stored up for himself much avoidable inconvenience.

Calgary certainly cannot accuse its municipality of any lack of enterprise; indeed, while the whole of the West is progressive, in no field does the progressive spirit manifest itself so clearly as in that of municipal government. The most conservative party in a western city would in other countries be considered radical, if not socialistic, and the party which governs Calgary to the satisfaction of its citizens, so far from being conservative, would be considered advanced even in the West. To the stranger nothing is more curious than this accord

between the electors—who show all the energy which springs from individualism—and the collectivists whom they have appointed to rule over them.

The municipality performs practically every public service of the city, owning all the plant such as tramway and electric-light lines, besides having an army of 3,000 men on its pay-roll. The city is controlled by the mayor and two commissioners, just as—to quote Mr. D. C. Nixon—‘ a president, a general manager, and a secretary would direct a private corporation, giving good government, and showing dividends and effective service ’; indeed, not many private companies are so well served, for the municipality, with rare foresight, bought up some time ago the most suitable sites along the routes which the railroads of the future would be likely to follow, and now offers them to manufacturers at a low price and at a fixed assessment. Moreover, until 1918 the buildings and stocks of purchasers are to be exempt from assessment. These sites are eagerly sought after, for both the Canadian Northern and the Grand Trunk Pacific Railways are busily building lines to Calgary.

But, numerous as its activities are, it is in its street-car service that the municipality has most clearly shown its capacity for administration. This concern made a profit from the time the cars began running, and to-day it claims to have the best and most modern equipment in Canada.

Public money is spent freely on education also; Calgary prides itself upon its schools, and it likewise possesses many churches.

The chief business of the town is connected with the grain trade and, as might be expected, its manufactures include such articles as biscuits. But trade is a subject upon which Calgary must speak for itself: let it do so through the mouth of the *Calgary Daily Herald*, which had the enterprise to issue more than once during last October what it called 'Progress and Publicity Specials'.

'Calgary's bank clearings for 1911 will equal or be very close to \$200,000,000.'

'Calgary will make the swiftest rate of business gain seen in North America this year.'

'There are 130 up-to-date wholesale and commission houses located in Calgary.'

'Calgary ranks among the very safest, surest, and liveliest real estate markets in Canada.'

'Calgary, according to the population, will hold the building record of North America this year.'

'Calgary has in process of construction a mercantile block that will cost \$1,500,000.'

'Calgary will spend \$14,000,000 on new buildings during 1911.'

'Calgary's manufactured products were about \$6,000,000 in 1910, and will be about \$30,000,000 in 1920.'

'Calgary will produce more manufactured goods in 1920 than Winnipeg did in 1905.'

The reader may be tempted to reply to the editor, 'Vous êtes orfèvre, Monsieur Josse, it is to your interest to tell us these things.' But this fact remains: Calgary, which had 4,000 inhabitants in 1900, can in 1911 make it worth the while of a daily newspaper shaped like *The Times* to produce twenty-eight pages.

CHAPTER XII

THE OTHER CITIES—WETASKIWIN, LETHBRIDGE, MEDICINE HAT

THE other cities of Alberta exhibit to a greater or less degree the characteristics of Edmonton and Calgary—energy, civic pride, confidence, municipal control of public services and so forth, and a minute description of each of them would entail much repetition. In this land of rapid development it would be an unwise proceeding to institute comparisons as to magnitude or to set down these growing communities in the order of their importance. A railway line is constructed, a coal seam is laid bare, there is a sudden flare of natural gas from the bowels of the daedal earth, an irrigation scheme is undertaken—and forthwith all the values are transposed; statements passed by the proof-reader excite the derision of the reviewer, and the most carefully compiled statistics become misleading as soon as they are printed.

A distant observer can see nothing in a young forest but its rapid growth—the expansion which affects the climate and alters the horizon; but he whose affairs take him through the woodland knows that all the trees have their distinctive features, and that their luxuriance is not always attributable to the same causes: one species has thriven on moisture, another on sunshine.

It is the same with the cities of Alberta ; the visitor soon discovers that if the growth be uniform, the cause of it lies in some special aptitude—in the capacity to profit by some local condition.

Wetaskiwin, for instance, is in the heart of the grain country, and has earned for itself the name of ' the Elevator City ' by reason of the energy with which it has profited by its natural advantages. Unlike some of its neighbours, it owes nothing to a ' boom ' ; its development has been what is regarded in the West as ' steady ' ; that is to say, the first settlers arrived in 1892, and it was not until 1897 that the first elevator was constructed. In 1900 it was incorporated as a village, in 1902 as a town, and in 1906 it became a city. Like Calgary, it is under a peculiar debt to the Canadian Pacific Railway line, which was extended into the district in 1891—a year before it was necessary to build a station.

Situated about forty miles south of Edmonton, it shares many of the advantages to which that city owes its selection as the provincial capital ; and it claims to afford an even more convenient approach to the Yellowhead Pass, through which, it is anticipated, two transcontinental railways will eventually make their way to the Pacific. The country around Wetaskiwin has the appearance of a park, the soil being a rich black vegetable mould, well suited to stock-raising, grain-growing and dairy production.

Readers of ' Hiawatha ' will not need to be reminded of the melodiousness of Indian names—Minnehaha, Laughing Water, is a haunting instance

—or of the poetic beauty of the Indian legends. The name Wetaskiwin—the Hills of Peace—and the story to which it is attributed might well have furnished Longfellow with another canto.

Once upon a time, it seems, the Crees and the Blackfeet started simultaneously upon secret expeditions, each against the other, the Crees coming from the north and the Blackfeet from the south, and each tribe encamped one evening on opposite slopes of the same hill, neither having any suspicion that the other was near. Nevertheless, a young chief from each side had the curiosity to survey the country. Both climbed the hill, and they met at the top. The fight that ensued was fierce but indecisive; neither would retreat, but neither could overcome the other; at last they had no choice but to rest for breath. The Cree at once began to smoke, but his enemy, less fortunate, had broken his pipe in the struggle. Unconsciously the exhausted Cree passed him his own pipe, and a whiff was taken before the consequences were realized. The hereditary foes had smoked the peace pipe, and it was impossible that the fight should be renewed. Thereupon the two parties returned each to their own country, and the meeting-place became known as 'The Hills of Peace'.

Lethbridge, the third city of the province, which, ignoring the 1911 census figures, calmly claims a present population of close on 14,000, is another city building its prosperity on the red winter wheat of Alberta, while, situated as it is on the river Belly in the south-west corner of the province, it claims

to be the distributing point for 40,000 square miles of good soil. In time to come, therefore, it can count on seeing at its doors unlimited raw material for all the industries based on cereals. But its natural advantages do not end here, for it stands in the midst of a large coal-field, and possesses the second requisite for success as a manufacturing town—vast supplies of cheap power. An illustration of one of its mines appears on Pl. VI. As for the third requisite—facilities for communication—Lethbridge is already a divisional point, both on the Crow's Nest line of the Canadian Pacific Railway and on the Alberta Railway, and as sundry other lines will reach the city in the course of the next few years it should have no difficulty in disposing of its products.

Lethbridge, indeed, originally looked to the coal-fields for its development; it was then known by the name of Coal Banks, and bull teams drawing loads of coal mined in the town were no uncommon sight on the old Fort Benton trail. These teams consisted of eighteen animals, and each team hauled three wagons, one fastened behind the other—an arrangement which was thought to make hill-climbing less exhausting. This picture of the primitive life led by the founders of Lethbridge is worth recalling in connexion with the long-distance telephone, the number of subscribers to which at the end of 1910 was 770, which showed an increase of 40 per cent. for the year; the waterworks; the twenty-four miles of cement sidewalks; the six public schools, the ten banks, the two hospitals, the Court House and the District Jail (these last

each costing \$100,000) ; the four parks ; and lastly, the Opera House, with which the next generation has endowed the city.

The impetuosity of the Westerner is well illustrated in another story of the early days of this particular city. A corporation called the North-West Coal and Navigation Company was established to extract the coal, and houses were built close to where the piers of the big trestle-bridge now are—the bridge of which Lethbridge proudly says, ‘Others may be longer and others may be higher, but no bridge in the world is at once so high and so long as ours.’ Its dimensions may be given : length, 1 mile 47 feet ; height, 307 feet. The investors had calculated their profits on the assumption that the coal would be carried to its destination by the river ; they had ascertained that the Belly was navigable, but not how often it was navigable ; and they found to their cost that this was only the case during the short period of high water. Fortunately it was not long before the Canadian Pacific Railway was put in connexion with the mine. When this happened, a new site was selected for the township, which was thenceforth named Lethbridge after a director of the Coal and Navigation Company. The streets of the town were also originally called after other directors and some of the shareholders, but these names had subsequently to be replaced by numbers, as the Provincial Government demanded this change before a street mail delivery could be inaugurated.

The critic who asked ‘What’s in a name?’ would have been told by any professional ‘booster’ of

the West that there is a great deal of gratuitous advertisement in a name when the name is Medicine Hat. Sir Cloudesley Shovel is remembered when many no less valiant admirals are forgotten. So it is with the city of Medicine Hat ; its geographical position is familiar to many who would, for instance, place Calgary in Australia. It seems incredible that in these days of ' Publicity Specials ' any citizen of Medicine Hat should have recommended a change of name, but such a proposal was recently put forward, though it was, happily, not accepted. The authorities do not agree about the origin of the name. All the stories treat of (a) A medicine man ; (b) A hat ; (c) The rapids of the Saskatchewan ; (d) The Breathing Spot of the Great Spirit ; but the proportion of each ingredient varies with the taste and fancy of the narrator.

Medicine Hat lies on the main line of the Canadian Pacific Railway, 660 miles west of Winnipeg, 882 miles east of Vancouver, and 70 miles north of the International frontier. Delightfully situated on the Southern Saskatchewan, it affords one more proof that the pioneers who chose the sites of the cities and towns of Alberta were concerned no less with the amenities than with the utilities of existence. Its history begins with the advent of the railway in 1883. The first settlers were ranchers, and the town still does a large business in ranch products, being known to this day as a ' Cow Town '. The future, however, is with the agriculturists ; to quote the local saying, ' King Steer is dead and King Wheat reigns in his stead '.

Like Lethbridge, Medicine Hat has access to large coal-fields ; but what is coal to Medicine Hat ? It may be had for the asking. Medicine Hat is the city of natural gas, and no other sources of power are required ; its citizens, indeed, look forward with assurance to its becoming an important manufacturing centre because of its exceptional advantages in respect of fuel-gas. The gas was known to exist under the township in the eighties, but for some years the supply obtained from shallow borings was of no great commercial value. Then a fund was raised and it was decided to bore deeper ; the boring went on ; the money ran out ; and what was sought was not found. But the mayor refused to be daunted : ' Go on,' said he, ' money or no money ; ' and then, presto ! there came a flow of gas which lifted mayor and bystanders into the air. So they say ! The gas is the property of the municipality. It is difficult to realize the meaning of this gift of nature : light, heat, and power are obtainable by the fortunate citizens at a negligible cost. One instance of this will suffice :—

' In the streets the gas burns day and night, as the city authorities find it cheaper to keep the lights burning than to pay the wages of a man to turn them on and off ! '

And with this astounding statement we may leave Medicine Hat.

CHAPTER XIII

SOME TOWNS AND VILLAGES

IN these days of strong competition among the new and growing towns of Alberta it is necessary for them individually, if they wish to attract the attention of the steadily increasing number of people who are so evidently anxious to secure some share of the fertile lands of the 'Last Great West', to keep continually in what has been described as 'the limelight of publicity' and one of the most characteristic features to newcomers is the constant use of 'slogans', as they themselves call their favourite catch-phrases. It is surprising how many towns unblushingly advertise themselves as 'cities' of opportunity, of destiny, of certainty, as the case may be, while the majority of them have in addition adopted one or more 'slogans'. Medicine Hat (really a city) is perhaps the most fortunate of them all, for Kipling made that town famous when he described it as 'the town that was born lucky, with all Hell for its basement', the latter part of his remark having reference, of course, to its supply of natural gas. Wetaskiwin, described elsewhere, is known as 'the Elevator City of Alberta', while Camrose claims two titles, 'the Railway City' and 'the Rose Town of Alberta'. Calgary's slogan is 'Come and see'; Red Deer is cryptic: 'You'll

hear from Red Deer'; Entwistle's invitation is 'Come and partake'; Killam says 'Watch Killam's progress'; Langdon, in the Irrigation Block, calls itself 'the Good Luck Town', while Stettler, less modest, answers proudly to the title of 'the Marvel of the West', and 'busy Leduc' claims also to be 'a good place to live in'. Many other 'slogans' might be given, but those mentioned are probably sufficient to emphasize the faith of each town in its own particular growth, and certainly in many cases it must be admitted that this growth has been so rapid as to be almost beyond belief.

One of the most progressive towns is undoubtedly Red Deer, which, with the river on which it is situated, was originally known as 'Waskasoo', a Cree word meaning Red Deer, because of the many deer found there, and hunted by the Indians for the sake of their hides. In 1883 a stopping-place was established near to where the Calgary-Edmonton trail crossed the river, some three miles west of the present town site, and later, with the advent of the railway, a substantially built town grew up, which to-day claims to be 'the prettiest town in Alberta', and which boasts a population of about 2,500. That, however, is still only a little more than one-tenth of what it hopes to achieve in the years to come. Certainly the rate at which it is forging ahead would seem to warrant the hope.

In the five months from April to August 1911 the building permits showed a total of \$182,875 as against \$34,780 for the same period in 1910, or an increase of 425 per cent., while during the same

months the Post Office receipts showed gains of 38 per cent. for stamps and 50 per cent. for money orders issued. The freight, tonnage, and receipts were three times what they were in 1910, and the returns of the Land Office indicated that the sums received for timber, mining, and school lands ran as high as 229 per cent. greater than last year. Yet these increases are easily understood when it is remembered that a territory of 2,000 square miles of fine farming land is tributary to Red Deer, and that grain and cattle raising, dairying and mixed farming have each and all been energetically taken up by an intelligent agricultural community growing in numbers yearly.

Parts of the district are well supplied with coal and timber; a rich coal area twenty miles east of the town affords fuel for the settler at the cost of \$1.50 per ton. The timber limits up the Red Deer River are at present being worked to some extent, while a good supply of lumber is sawn and manufactured in the various mills at Red Deer, and one company alone employs a hundred hands. A sound quality of common brick is also manufactured in the town from surface clay easily obtainable locally, and excellent grey sandstone is quarried right in the town. Moreover, just outside is found a marl which will burn to make cement.

All these resources offer the man with knowledge and some capital a splendid chance of building up profitable industries, but no industry in this district enjoys such an enviable position as does dairying. Half of the entire cheese output of the province

emanates from here, as there are now six creameries in the neighbourhood, and the one at Red Deer with another four miles south made 200,000 pounds of butter last year. To Red Deer also belongs the proud distinction of having raised the champion dairy cow (illustrated on Pl. X) of any age or breed in Canada. 'Rosalind of Old Basing,' the property of Mr. Julian Sharman, surpassed in a twenty-four months' official test the previous highest butter record in Canada, by giving the milk equivalent of 1,475 pounds of butter in the two years ending May 23, 1911.

In addition to all this the town owns its water, electric light, and power services, its telephone system, sewerage, and fire protection, while its public buildings, such as churches and schools, to say nothing of its seventy-eight acres of parks, are in keeping with its ambitions.

Camrose, originally so-called because of the luxuriant growth of beautiful wild roses to be found on every side, the name being a Scotch one meaning a 'rose-covered hill', is another town that is forging ahead rapidly. Six years ago the site of the present thriving town was a wheat-field from which 45 bushels of grain to the acre were threshed. Now it has a population estimated at close on 1,500, which is the strongest proof that could be given of the optimism and energy of the men who have been responsible for its rapid development. In 1910 the assessed value of its real and personal property was \$894,898, as against \$1,648,951 in 1911, an increase of more than three-quarters of a million



THE PRIDE OF RED DEER—'ROSALIND OF OLD BASING'

dollars, and the assessment for school purposes on property outside the town limits has increased 200 per cent. Among its industries Camrose boasts a tannery possessing the largest plant of this kind in the province, which manufactures an excellent quality of leather for shipment to Calgary, Edmonton, and other western cities. The development, however, in which the town, like other towns similarly situated, takes particular pride, concerns the mixed farming operations in the tributary country, the year 1910 and the first six months of 1911 having shown amazing increases in the shipments of cattle and hogs. Camrose, because of its railway facilities, is further becoming quite an educational centre; a Scandinavian college supported by the United Lutheran peoples of the United States and Canada, and destined to accommodate 300 students, has recently been established there, while seven churches take care of the spiritual needs of the people.

Many other thriving and promising towns and villages are to be found, all conveying to the visitor a favourable impression, their growth and stability in most cases being due to the excellent agricultural districts tributary to them, though in some instances manufacturing enterprises have already been created by agricultural demands and needs. At the end of 1908 there were twenty-eight villages and thirteen towns in Alberta. Two years later an additional thirty villages and twenty more towns had been incorporated, many of which already control and operate their own telephones, electric lights, gas and water works, and sewerage systems. Space

forbids the mention of more than a few of these flourishing towns, as for instance: Daysland, incorporated in 1907 and boasting a population of about 800, chiefly Canadians and Americans engaged in spring wheat growing; Sedgewick, where are to be found the non-irrigated 'ready-made farms' of the Canadian Pacific Railway, and where last year 145,000 bushels of grain, 240 cattle, and 500 hogs were handled; Alix, which will soon have three transcontinental railways passing through it, and which was named after a pioneer woman, Mrs. Alix C. Westhead, who still owns and manages a ranch of some 3,500 acres; Stettler, which in five years has grown from bare prairie into a town claiming a population of 2,000, and now has four elevators with a capacity of 180,000 bushels; and Castor, more remarkable still, since two years ago it was literally not 'on the map', whereas now it boasts a population of more than 1,000 souls. Already it has a \$20,000 school, which, only finished in 1910, will have to be enlarged in 1912. One of the churches has in the meantime been pressed into use for the constantly increasing numbers of children needing tuition. Moreover, land in this town rose in value from \$9 an acre to double that price during 1910, and even at the enhanced price practically none is now available for a hundred miles east and south of Castor. Then there are Lacombe, a town of 1,500 inhabitants, on the direct line between Calgary and Edmonton, with a flour mill, a foundry, a planing mill, a brickyard, grain elevators, electric light and telephones, and a Government Experimental Farm near by; and

Leduc, whence last year 85 carloads of willow pickets were shipped south and east, the farmers receiving 2 cents each for every willow picket with a two-inch top, and at the rate of 1 cent per foot for tamarack posts. Carmangay, Champion, and Vulcan on the Kipp-Aldersyde branch, and Acme, the present terminus of the Langdon branch of the Canadian Pacific, all present decidedly encouraging aspects of progress. Eastward from the Foothills in the south stretches out another great grain-raising district, which includes Pincher Creek, Macleod, High River, Claresholm, and scores of other places all steadily growing in population and prosperity. The name of one of these increasingly prosperous towns, namely Macleod, always brings to the face of the 'old timer' a smile of pleasant recollection, and starts him with his yarns of the days when the buffalo and the bull team, the rope and the cowboy were continually in evidence. Founded in 1874 as the earliest post in Alberta of the Royal North-West Mounted Police, and until a few years ago still nothing more than a ranching town, Macleod now proudly calls itself the 'railway hub of Southern Alberta' and claims that on account of its railway and elevator facilities its grain market is from 2 to 10 cents a bushel better than that of neighbouring shipping-points. Nor is the town lacking in that patriotism so general throughout Western Canada, for at the time of the Boer War the first offer of volunteer troops came from Macleod and Pincher Creek, as the Mounted Police volunteered to a man.

In addition to the good work done by the Canadian

Pacific in developing the province, the Grand Trunk Pacific has also opened up many new towns owing to the fact that their line passes through an area capable of immense production, the famous Clover Bar district, Tofield, Scott, and Wainwright, to name but a few, being on their main line east from Edmonton, while west from Edmonton are Entwistle and Edson, to say nothing of many new places giving promise of substantial growth on their branch lines in the province. Nor are the Canadian Northern less active in making their influence felt. Vermilion (which in the last four years has acquired a \$40,000 school, five churches, two banks, a Customs House, a weekly newspaper, a theatre, an electric light plant, a telephone system, and a Government creamery), Vegreville, and Lloydminster are but three of many flourishing towns on their lines of railway.

All of these towns and many others which unfortunately cannot here be individually mentioned owing to lack of space, bear the sure indications of future importance no less than the conventional signs of present material welfare. And not alone are the towns thus significant, for in the faces of their citizens is reflected a becoming pride in what has been accomplished in the past as well as a determination to achieve yet greater things in the future.

CHAPTER XIV

FINANCE AND TRADE

IN respect of the control of the revenue and expenditure of the province, the Provincial Assembly resembles the British Parliament. No petition or motion for any sum, grant, or charge relating to the public service is received or proceeded with unless recommended by the Crown representative, the Lieutenant-Governor. The Assembly can determine the amount of money which shall be granted and the sources from which it shall be obtained, but theoretically it has no power to spend any sum without the consent and approval of the Crown.

Of the revenues of the province a considerable proportion is derived from sundry subsidies and grants made by the Dominion Government under the terms of the Alberta Act of 1905, which were increased by amending legislation in 1907. These are (*a*) a fixed annual grant for government and legislation, (*b*) a capitation grant, (*c*) compensation in lieu of public lands, and (*d*) an allowance in lieu of debt.

The grant for government and legislation is fixed at \$180,000 annually until the population exceeds 400,000 souls, when it will be increased to \$190,000.

For a population of more than 800,000 the grant will be \$220,000 annually, to which \$20,000 will be added when a census shows that there are more than 1,500,000 people in the province.

As to the capitation grant, the sum of 80 cents per capita is to be paid until the population reaches 2,500,000, and thereafter 60 cents per capita for so much of the population as exceeds that number.

By the Alberta Act of 1905 all Crown lands, mines, and minerals, and royalties incident thereto, and the interest of the Crown in the waters within the province, were continued in the Crown in the right of the Dominion, in consideration whereof the sum of \$375,000 was annually payable to the province until its population should number 400,000, when \$562,500 was to be paid. For a population of 800,000 the grant was fixed at \$750,000 and for a population of 1,200,000 the province should have received \$1,125,000 yearly. But the avowed policy of the present Federal Government is to transfer the public domains from the Dominion to the province, which will bear the cost of administering them, and reap the full benefit of the natural resources they contain, and when this is accomplished the subsidy in lieu of public lands will naturally cease.

In view of the fact that the province had no debt, but shares liability for the public debt of Canada, the sum of \$405,375 was granted in 1905, and continues to be paid until the present time.

Apart from the Dominion subsidy the sources of provincial revenue are as follows :

The interest on the principal of the School Lands

Fund; and monies derived from the supplementary educational tax, first imposed by the Albertan Government in 1907, upon unoccupied lands lying outside the organized school districts.

The receipts of the Attorney-General's Department, consisting of the general revenue of the Land Titles Office (the principal item), liquor licence fees, fines under Provincial and Dominion statutes, fees of the Clerks of Courts, succession duties, and other receipts.

The receipts of the Public Works Department, mainly fees for the inspection of steam-boilers and the like.

The receipts of the Education Department, consisting of the monies receivable under the Supplementary Educational Act, and of a small amount from examination fees.

The receipts of the Agriculture Department, largely represented by reimbursements of advances on butter and poultry, and of loans to creameries, payment for seed grain sold, game licence fees, and others.

The Provincial Secretary's Department contributes an amount for licence fees and fees under certain statutes; the Treasury Department, its income under the Corporations Taxation Act and the Railway Mileage Tax Act, and the Hail Insurance fees; the Legislative Assembly, fees for private bills; the Government Printer, revenue from the *Official Gazette*, printing and advertising, and the Telephone branch contributes its receipts and interest.

In seeking new sources of revenue direct taxation of the people has been avoided. Since 1905 measures

have been introduced levying tribute on railways, on corporations, and on lands outside organized school districts, and these may be briefly explained. During the session of 1906 the railways were assessed at the rate of \$20,000 for each mile within the province, and upon this basis they pay a tax of 1 per cent. The Corporation Tax Act applies to insurance, loan, trust, street railway, telegraph and telephone, express, and gas and electric light companies doing business in Alberta. Banks are assessed at \$400 for the head office and \$200 for each branch to the number of four; for each branch in excess of four they pay \$100. Private banks in towns and cities pay \$200, and in villages \$100. Insurance companies pay at the rate of 1 per cent. per annum on the gross premiums of business transacted in the province. Loan companies pay according to their capitalization, and trust companies according to their capital or earnings. Street railways, with 20 miles of track or less, pay \$200 a year; for each mile in excess of 20 the tax is \$10. Telegraph companies operated by a railway company pay \$1,000 a year; express companies with 50 to 100 branches in the province pay \$500; with over 100 branches, the payment is \$1,000.

The Educational Tax Act ordains that all land within the province subject to taxation by the province shall, with certain exemptions, be taxed $1\frac{1}{4}$ cents per acre for the benefit of education. The exemption clause applies principally to lands situate in organized school districts, the object of the Act

being to oblige owners of large areas of land outside of school districts, and held for speculative purposes, to contribute to the cost of education in the province.

The expenditure of the province is divided into expenditure from the capital account and expenditure from general revenue, and comes under the following heads :

Civil Government : the disbursements include salaries and expenses of the Lieutenant-Governor's office, the Executive Council, and the various Departments. The salary of the President of the Executive Council is \$1,000, and there are four members with salaries of \$5,000. Each Department has its deputy head, who is in receipt of a salary.

Legislation : the largest item is the indemnity to members, which includes travelling expenses. The Speaker and Deputy Speaker each receive a sessional allowance.

Administration of Justice, including the administration of the Licence Branch. The salaries of the Judges of the District Court, of Police Magistrates, and of Sheriffs, are, of course, charges upon the Provincial revenue.

Education : grants to and inspection of schools, the maintenance of the Normal School and Teachers' Institutes, and disbursements under the Educational Tax Act are the principal items.

Under the heads of Agriculture and Statistics, and Public Works, are disbursements for purposes in accordance with the designations of these Depart-

ments. The sums voted for hospitals, charities, and public health are expended in accordance with the Hospital Ordinance and the Public Health Act, as also to some extent on the care of incurables and in connexion with the office of the Sanitary Engineer. Included in Miscellaneous Expenditure are such items as occasional grants (e.g. to the Alpine Club at Banff, the Provincial Rifle Association, and others), advance to the Government Printer, disbursements under the Hail Insurance Ordinance, and payment of outstanding liabilities of the North-West Territories, but the main item is interest, commission, and exchange expenses incurred in the financial transactions of the province. Disbursements in connexion with the construction, operation, and maintenance of telephones and interest on Telephone Debentures come under the head of Telephones, while the maintenance and transportation of prisoners and of the insane is a separate branch of expenditure.

A very fair idea may be obtained of the past and present policy of the Provincial Government, in relation to the control and expenditure of public funds, by comparing the accounts for the year 1908 with the estimate for 1911.

<i>Revenue</i>	1908	1911 (<i>estimated</i>)
	\$	\$
Balance from previous year	43,850.38	305,820.68
Dominion Subsidy	1,254,125	—
For Government and Legislation ¹	—	180,000
Capitation Grant ¹	—	212,693.60
In lieu of Public Lands ¹	—	375,000
In lieu of Debt	—	405,375
School Lands Fund	—	120,000
Attorney-General's Dept.	371,003.17	565,500
Public Works „	130,682.71	27,000
Education „	1,379.00	128,500
Agriculture „	27,814.64	239,000
Provincial Secretary's Dept.	23,008.32	50,000
Government Printer	3,139.46	8,000
Treasury Dept.	164,328.56	199,490.51
Legislative Assembly	2,057.50	7,000
Dairy Commissioner	241,298.20	—
Miscellaneous	630,813.85	163,364
Telephones, receipts	—	460,000
	\$2,893,500.79	\$3,446,743.79

The estimated revenue for 1911 under the head 'Miscellaneous' is made up of the following items: payment by the Province of Saskatchewan of one-half of the liabilities of the North-West Territories paid by the Province of Alberta, \$2,500; refunds, &c., \$15,000; and interest from Telephone branch, \$33,864; interest on Bank Balances, \$112,000.

The actual expenditure for the year 1908 (with some particulars thereof) and the proposed expenditure chargeable to income for 1911 was as follows:

¹ Estimated for 1911 on the basis of a population of 265,867 (1906 Census figures).

	1908	1911
	\$	\$
Civil Government (salaries and other expenses of the various Depts.) .	173,451.98	217,230.00
Legislation (indemnity to members, \$25,362.10)	35,749.25	57,990.00
Administration of Justice (Royal North-West Mounted Police, \$75,000; committal and maintenance of insane, \$43,321.85, and of prisoners, \$29,376.80; Land Titles offices, Edmonton and Calgary, \$58,261.96; witnesses, jurors, interpreters, \$26,488.80) . .	338,910.92	425,100.00
Public Works (roads, \$249,694.38; bridges, \$347,839.56; Parliament Building, Edmonton, \$166,529.04; surveys, \$74,760.79; Normal School, Calgary, \$97,237.42)	1,323,231.25	513,000.00
Education (grants to schools, \$228,678.48) .	282,205.04	605,230.00
Agriculture and Statistics (advances to creameries, \$249,802.92; agricultural societies, \$20,296.49; sugar-beet industry, \$21,464.50)	436,904.65	411,680.00
Hospitals, Charities, and Public Health	61,489.47	97,000.00
Miscellaneous (Hail Insurance, \$73,454.99; Government Printer, \$38,696.60)	131,223.94	537,750.00
Site for Parliament Buildings	35,000.00	—
Fernie Fire Relief Fund .	5,000.00	—
Telephones	—	408,090.00
Prisoners and Insane . .	—	145,000.00
	\$2,823,166.50	\$3,418,070.00

There remain to be quoted some details of the estimated expenditure for 1911. Under the head of Legislation the item 'indemnity to members' is put at \$43,000, owing to the increase in the number of representatives. Among the disbursements proposed on account of Public Works are: for the Parliament Buildings at Edmonton, \$515,000; construction of bridges, \$220,000; asylum at Ponoka (to complete), \$160,000; Edmonton Court House (to complete), \$140,000; these items being chargeable to capital account; from the revenue was to be voted \$220,000 for the construction of roads, \$100,000 for the rent and maintenance of the Legislative and Departmental buildings, \$30,000 for ditches and drains, \$30,000 for maintenance of bridges, and other sums. Under the head of Education the grants to schools were put at \$390,000. Disbursements on Agriculture and Statistics were to include a sum of \$125,000, chargeable to capital, to provide for the purchase and equipment of five demonstration farms; other items chargeable to income were for the advance payments and general expenses of the creamery work (\$200,000), expenditure under the Agricultural Societies Ordinance and for special grants to exhibitions (\$48,500), destruction of noxious weeds (\$20,000), promotion and encouragement of the dairying industry (\$14,500), and also expenditure in other directions calculated to assist agriculture. The Miscellaneous items included 'interest, commission, and exchange, \$371,050'; and a grant of \$7,500 to defray the expenses of the Premier of Alberta while attending the coronation of George V.

A study of the details of the expenditure since Alberta became a province shows that the proportion dedicated to purposes of a reproductive and semi-productive nature is satisfactorily high. Objection might be made to the cost of the Parliament Buildings, but these, though ornate, will by no means be exclusively ornamental. The items more justly open to criticism are the vote for the construction and maintenance of roads, which errs on the side of economy, and the vote for the compilation of statistics (vital, medical, and industrial, as well as agricultural), which appropriates for this important purpose the trifling sum of \$6,500.

In connexion with statistics it is greatly to be regretted that such returns as the writer was able to obtain do not convey anything like an adequate idea of the rapidly growing export and import trade of the province. It is scarcely credible that even in Ottawa it should be impossible, without months of tedious searching, to collect the figures relative to the trade of each of the Prairie Provinces. The returns for these are presented in one heterogeneous mass, defying any attempt at dissection, the achievements of Alberta in grain and cattle exportation being recorded jointly and inextricably with those of Saskatchewan, and as a result this branch of her external trade remains shrouded in uncertainty. All that can be said of the exports of 1911 is that they show a considerable increase over those of 1910, and that they reflect the change which is taking place in the industries of the province; that is to say, there is less live stock, more grain, and

more manufactured and semi-manufactured material exported.

It is possible, however, to compare the imports of the last two fiscal years, and to show the duty collected on the same :

<i>Chief Ports</i>	<i>Imports, 1909-10</i>		<i>Imports, 1910-11</i>	
	<i>Value</i>	<i>Duty</i>	<i>Value</i>	<i>Duty</i>
	\$	\$	\$	\$
Edmonton :				
dutiable .	902,843	286,604	1,433,236	433,896
free . .	240,131		298,520	
Calgary :				
dutiable .	2,407,999	697,746	4,200,343	1,188,739
free . .	863,693		1,207,572	
Lethbridge:				
dutiable .	1,025,077	267,559	1,300,741	313,021
free . .	508,482		654,314	
	\$5,948,225	\$1,251,909	\$9,094,726	\$1,935,656

No details of these imports are available, and the bare statement that they are mostly manufactured articles is not of much assistance. It is impossible not to feel that in respect of the compilation of statistics, and of the keeping of records generally, not only Alberta but Canada as a whole has much to learn even from those of the South American republics which are usually considered 'backward'.

The flourishing state of trade generally is better indicated by the extraordinary increase in the number of chartered banks with branches in the province. Canadian banks, as one of the illustrations on Pl. XI will suggest, are eminently enterprising, especially in the matter of 'getting on the

ground ' in Alberta and the other Western provinces. In 1905 there were but 41 banks, in 1910 there were 140, and at the beginning of the present year there were no less than 203 in Alberta, while bank clearings showed an increase in 1910 of approximately 40 per cent. over those of 1909, itself a record year.

In another way the returns of the Post Office Savings Banks, of which there are 28 in the province, demonstrate the confidence of the population in the future of their province. The allurements of ' deals ' in Albertan real estate and of other rapid methods of turning surplus income to good account fully explains the failure of the savings banks to attract deposits. At the close of the fiscal year 1910-11 the balance due to all depositors in Alberta was only \$398,698.

The value of rural and urban land has appreciated rapidly, especially since 1905, when the returns furnished by the Department of the Interior show that the average price paid for lands was \$5.09 per acre. In 1910 the average had risen to \$13.36, and 1911 will have seen a further large improvement. These figures, however, are influenced by the realty ' booms ' in the big cities ; a better index is provided in the fact that the average assessed value of property in the smaller towns such as High River, Claresholm, Gleichen, Innisfail, Stettler, and Olds increased during the four years 1906-10 by 93 per cent.

The legitimate business of the Post Office in Alberta is much heavier, proportionately to population, than in Ontario. In July there were 881 offices



READY FOR BUSINESS



A CITY BANK IN ALBERTA

in operation in Alberta, distributed over the province in proportion to the needs of the inhabitants, and from many of them, even in the remotest parts, a system of rural mail delivery has been inaugurated which is a boon to the homesteader and farmer. For the year ending March 31, 1910, the gross postal revenue was \$493,374, the number and value of money orders issued being 316,815, amounting to \$4,774,877, and of money orders paid, 104,274, representing \$2,147,027.

CHAPTER XV

EDUCATION

OF all the problems which confront the Albertan Government in the form of a strong and constant influx of cosmopolitan immigration none is so urgent or so difficult as that of education. The new arrivals, or the great majority of them, satisfy their physical needs from the first by their own efforts; good British law, with the aid of the excellent example set by their neighbours, and the wholesome influence of hard work in healthy surroundings, keeps them in order; but to raise their social, moral and intellectual status and to bring them to a comprehension of their rights and responsibilities as citizens, is another question altogether. In a great measure it has been solved by the very liberally conceived scheme of public instruction inaugurated by the Provincial Government.

Under the terms of the British North America Act one-eighteenth of all the land of the North-West Territories was reserved for the benefit of education in Canada. This magnificent endowment, conservatively estimated to be worth at the present time not less than \$150,000,000, is represented by nearly 24,000,000 acres of land, of which Alberta owns some 7,500,000 acres, including an area of approximately 4,500,000 acres not yet surveyed.

From time to time these lands are disposed of by public auction ; from May 1887 to April 1911, the average price realized has been \$11.54 per acre, and the total amount received on account of principal standing to the credit of the School Lands Fund was, on April 1, of the present year, \$1,292,014. The lands may be leased for coal-mining ; permits are likewise granted for grazing, as also for timber and hay cutting, and a considerable revenue is derived from these sources ; but they may not be leased for agricultural purposes. All moneys realized from the sale of school lands in the Province are invested in Canadian securities, and the interest, after deducting the cost of management, is paid annually to the province for the benefit of schools.

Each province has full control of its own education, and has planned a system to suit its own peculiar needs and conditions. Instruction in Alberta is free in the primary schools, but in some instances kindergarten and secondary schools are permitted to charge a small fee. Every facility is given for obtaining primary schools : if in an area only five miles either way in length and breadth there are four residents who would be assessable for the school tax, and eight children between the ages of five and sixteen inclusive, that area may be organized into a school district, and as such can issue debentures for the purpose of raising funds wherewith to build a school house. (The payment of these debentures, which in 1910 were authorized to the extent of \$1,027,892, is the basis of the school tax on the land in the district.)

The Government makes a liberal grant towards the teacher's salary, so that the cost of maintenance is small. The district selects the teacher, who must be duly qualified and certificated by the Alberta Board of Education. Broadly speaking, the better the teacher's qualifications the greater the grant for salary. In addition there is a further provincial grant contingent upon the percentage of attendance and the number of days the school is kept open during the year. In 1910 the sum expended by the Government on grants to schools was \$317,411, as against \$262,100 in 1909. New school districts were organized during 1910 (not in every case at the request of the settlers concerned) to the number of 251, or at the rate of five a week, and there are now nearly 1,600 public schools in the province. They are all inspected by Government inspectors, and the Government controls their organization, their examinations, the certification and training of their teachers, the authorization of textbooks, and similar matters, but considerable power is vested in the local school-boards.

Attendance at these institutions is nominally compulsory, but in some of the districts, in view of their unsettled state, the compulsory clause of the School Act has not hitherto been very vigorously enforced. The attendance is, however, fairly satisfactory; most of the children go to school for at least six months in the year, and pressure is being brought to bear upon certain school-boards with the object of keeping the schools open all the year. In the elementary schools boys and girls are educated

together, and although the expediency of this system may be debatable, the results do not seem to point to the desirability for separate instruction. There is no direct moral training, and religious instruction is optional and confined to the half-hour previous to the closing of the school in the afternoon. On the other hand, there are a certain number of Separate schools where a point is made of giving religious training every day.

In the rural schools, one of which is illustrated on Pl. XII, special attention is paid to education in agricultural subjects. The course of study in both rural and urban districts comprises languages, literature, mathematics, geography, and history; in most cases manual and physical training and nature study are also included. The school-boards of the larger centres have further established kindergarten and household science schools, which are now receiving the support of the Government, and the results obtained in these have been particularly encouraging.

In 1910 the total number of students enrolled was 55,307, as against 39,653 in 1908 and 46,048 in 1909. The average length of the school year was 167 days, the average attendance of the pupils 29.611, and the percentage attendance 53.5; these figures all indicate considerable improvement upon previous years. The standard of scholarship is perhaps somewhat higher in Alberta than in the other provinces, and the pupil who passes the public school leaving examination is generally fitted to enter the second form of the high schools. As

the vast majority of pupils do not elect to continue their education in the secondary schools it is well that the instruction provided in the public schools is as thorough as it is.

Alberta still depends largely for teachers, male and female, upon sources outside the province, especially upon Eastern Canada and Great Britain, but they also come from the United States. The really excellent Normal School at Calgary is training and sending out a rapidly increasing number of students, but as three or four hundred new masters and mistresses are required every year, and as the total attendance at the Normal School was but 228 in 1910, it is obvious that the supply available from the province itself is quite inadequate. The salaries of female teachers must be considered good (see the chapter on Women and their Work), and for male teachers the average salaries paid are about \$950 (first class) and \$720 (second class). The strongest and most constant demand for teachers comes from the rural school districts, where, however, the pay is not quite so good, and where the work is exacting and calls for the exercise of much patience and ingenuity, particularly in dealing with the foreign element. Here it may be remarked that English is the only language in which instruction in the public schools may be conveyed to the children of Alberta.

Higher education is provided at the University of Alberta, an institution which has been criticized as being beyond the present needs of the province. It is situated, as already mentioned in Chapter X, in what was until recently known as Strathcona, in



RURAL SCHOOLHOUSE



A CITY SCHOOL IN ALBERTA

grounds of some 260 acres in extent on the right bank of the North Saskatchewan. At present only its Arts Building is completed, but work is being rapidly pushed forward on the dormitory building, and the plans which have been approved indicate that when finished the University should be, in point of architecture and dimensions, one of the finest on the North American continent. In 1910 the number of University students was 139, of whom thirty-one were women. There is at present only one faculty, that of Arts and Science ; instruction is given in English, classics, modern languages, history, philosophy, chemistry, and mathematics. It is hoped shortly to found faculties of Agriculture and Law, and possibly a Mining School. Some of the milder critics of the University have asked why the interests of agriculture and mining were passed over in favour of knowledge which will not greatly assist the material progress of the province, and the question seems difficult to answer ; but the founding of the University, like the inception of the grandiose Parliament Buildings at Edmonton, also referred to in Chapter X, is evidence of the splendid faith of the people in the future of their province, and the needs which that future will bring with it.

The rural and smaller town schools of Alberta are for the most part well built and well ventilated, but the grounds which surround them are in all too many cases ill kept and unattractive. The fences are of wire, often of barbed wire, or the schools have an ugly arrangement of poles and boards around them. In the cities, however, the solid and handsome

buildings stand in orderly and well-kept, if not in beautiful or spacious grounds. One of the illustrations on Pl. XII shows a school-building of the usual character in a typical prairie city.

The education of the Indians of Alberta is in the charge of the Superintendent-General of Indian affairs, a member of the Canadian Government. In 1910 there were in operation in Alberta eight day-schools for Indian pupils, sixteen boarding-schools, and two industrial schools, conducted at a cost to the Dominion Government of about \$47,000. At the day-schools, the number of pupils on the rolls was 201, of whom 84 were girls; at the boarding-schools there were 319 boys and 289 girls, and at the industrial schools the registers showed 80 boys and 49 girls, a total of 938 children in all. Of these schools twelve are under the care of Roman Catholic priests, with a staff of sisters, eight are conducted under the auspices of the Church of England, and six are in charge of the Methodist Church. The good work done in these institutions is revealed in the reports of the Government inspectors.

A typical day-school is a neat frame structure, about 18 feet by 25 feet, furnished with desks and forms, warmed by a stove, and kept scrupulously clean. The children in some of the schools are well dressed in Indian fashion, the boys wearing blanket coats and leggings, and keeping their hair long. Besides the usual elementary education the boys are taught farming and gardening in the grounds attached; the girls learn sewing, knitting, and general household duties. Among the pupils quite a large number are really

intelligent, and display in examinations a surprising knowledge of the subjects taught them. They are punctual in attending school, and the teachers usually have little difficulty in keeping them there; a warm meal is supplied at noon, and in cases where the children live far from the school, or when the weather is severe, conveyances are provided to take them home.

Boarding-schools are naturally larger buildings. The St. Albert Boarding-School, for instance, is a combined Indian half-breed and white boarding-school and also a public day-school, where treaty Indian children, to the number (in 1910) of 73 are being trained in separate quarters. Farming is taught to boys of sufficient age, and the well-conducted farm connected with the institution provides all the beef, pork, poultry, and dairy produce required. The girls learn dress-making, needlework, and similar domestic occupations. Reading, writing, grammar, English and Canadian history, geography, arithmetic, drawing, painting, and music are taught; the girls have a mandolin club, and the boys possess a brass band.

As to the industrial schools, they are in most respects similar to the boarding-schools; carpentry is the chief practical subject taught in addition to agriculture, but the general aim in these schools is to make all the children useful.

Education in the public schools of Alberta is made to do more than instruct the children in the three R's—it is used as a means of instilling into the young, whether they be of British or foreign extraction,

a feeling of pride in the province and in the Dominion, and of loyalty to the British flag. It inculcates cleanliness of mind and body, and aims wisely at quickening the powers of perception and ratiocination rather than at cramming the brain with knowledge of which nine-tenths will never be utilized. The sternest critics of the schools are to be found in the province itself; to the writer, who is familiar with educational methods in more than one country, there appears to be far more to praise than there is to criticize in what Alberta is doing for her coming generation.

CHAPTER XVI

SPORT AND RECREATION

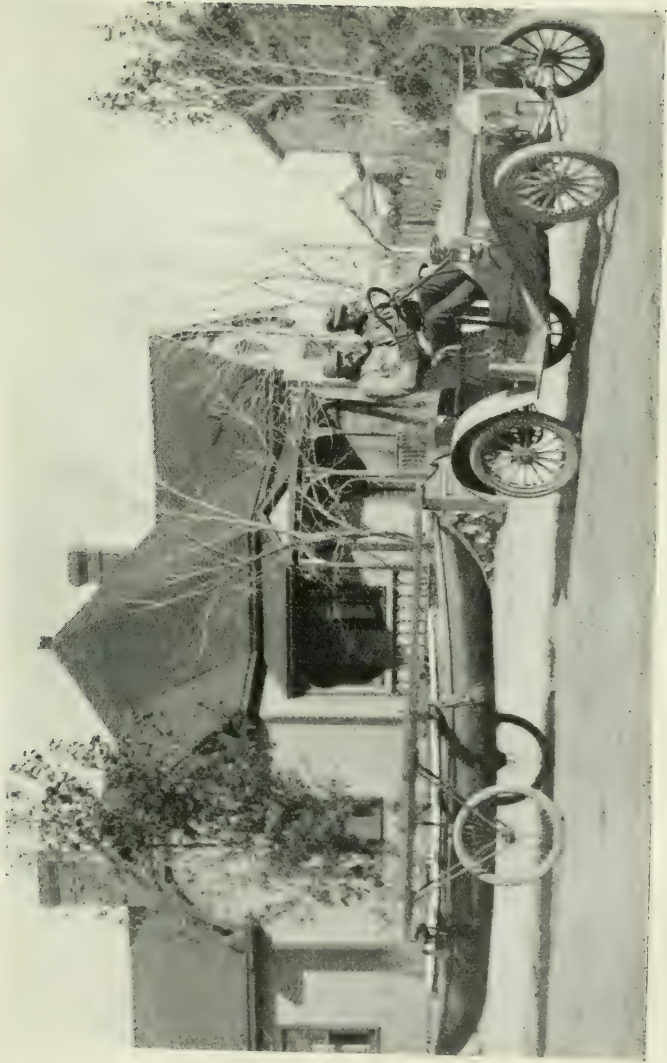
IN sporting circles, at least, Alberta enjoys a reputation which has extended beyond the bounds of the Dominion. To many a big-game hunter the name of the province stands for moose and caribou ; to many an ardent mountain-climber it evokes a vision of the sombre, mysterious Rockies and of a thousand unconquered peaks, and those who know the province well do not contest its claim to be a sportsman's paradise.

It is perhaps for its mountain region that Alberta is most famous, and with reason. Nowhere on the North American continent are the Rockies more sublime in their grandeur, nowhere is their scenic beauty more varied ; it is as if twenty Switzerlands were massed on the south-west border of the province. Banff is the recognized centre for mountain-climbing, and the Alpine Club there is doing much to encourage interest in this fascinating pursuit. Its annual meetings attract mountain-climbers from all parts of the world, and its membership, which since the inception of the club in 1906 has grown to nearly 700, now numbers some of the most famous and enthusiastic mountaineers in the world. Camp life is a strong feature of the club, and the ascent of

a peak at least 10,000 feet above sea-level is the basis of actual membership.

Apart from the mountain-climbing, which is perhaps the greatest attraction at Banff, riding is a favourite pastime, as are also canoeing and boating. The Bow River, for a stretch of nine miles above the town, is navigable for small craft, while one of the pleasures of the winter there is the novelty of bathing in the open air in warm or hot sulphur springs, when the thermometer registers something below freezing-point. These springs issue from the mountain-side all the year round at a temperature of about 120°, and for the use of visitors the Government has provided a well-equipped bath-house, with tub, shower, and plunge baths, as well as an open-air swimming pool; the charge for baths is 25 cents each.

The rivers and lakes of the prairies provide good fishing, and also, in the fall of the year, equally good shooting. Flocks of geese and of wild ducks, of a dozen different species—grey, teal, canvas-back, mallard, and spoonbill predominating—find ideal resting-places on their banks and shores and in the vicinity of the numerous sloughs scattered across the prairies. The borders of many of the lakes are dotted with summer cottages and tents, for the 'week-end' habit is growing steadily in Alberta as elsewhere, while all manner of craft, from canoes to motor-boats and gasoline launches, are to be found tacking in and out among the islands, which, in many instances, add still further beauty to the larger lakes. Several yacht clubs flourish in the



PREPARED FOR SPORT ON LAND OR WATER

province; the Camrose Yacht Club in particular has done much to popularize Lake Miquelon, situated picturesquely some miles east of Wetaskiwin. Here the erection of boat-houses has been followed by the building of a pier, which will greatly improve the boating and bathing facilities at the lake, and will also increase its popularity as a picnic resort.

For the more ambitious sportsman there is a vast expanse of country lying between the two great national game-preserves—Rocky Mountain Park and Jasper Park—where are to be found lynx, marten, mountain sheep, mountain goat, caribou, hoary marmot, grizzly bear, black bear, fox, ermine, mink, deer, and moose, as well as grouse, duck, snipe, and hare. A sportsman going to the Rockies about October and remaining until Christmas is said to get the pick of the game as well as of the hunting. Mountain goat can be found in many places, but it is necessary to go to Alberta to secure mountain sheep, which, by the way, is said to be very good eating—in some people's opinion, indeed, it provides the best meat in the world. Moose are to be found along the North Saskatchewan and Athabasca rivers, as well as in the more northern part of the province. Caribou are plentiful north of the 55th parallel, deer are to be found in almost every section where there is brush or timber, and prong-horned antelope are reasonably plentiful in the south-eastern parts of Alberta.

The provincial game-laws prohibit, among other things, hunting on Sunday and the shooting of any animal or bird between one hour after sunset and

one hour before sunrise. While there is no open season for the shooting of buffalo, elk, or beaver, deer, moose, and caribou may be killed during the month of November. Mountain sheep and goat may be shot from September 1 to January 1, and antelope during October. The open season for wild ducks and geese is from August 23 to January 1, while October is the month for shooting prairie chicken, partridge, and grouse.

A non-resident's licence, costing \$25, permits him to take with him out of the province the head, hide, and hoofs of any big game lawfully killed by him, while residents may obtain big-game licences from local agents in cities, towns, and villages for \$2.50. The number of big-game animals shot by sportsmen in 1910 was in excess of any previous year; the figures for that year and those for 1909 are shown below :

	1909	1910
Deer . . .	299	540
Antelope . . .	89	126
Moose . . .	86	184
Caribou . . .	5	8
Mountain Sheep . .	40	54
Mountain Goat . .	38	46
Elk	—	7

So much for sport.

With reference to games in the province, they are interesting if only because they show the spirit of the people. Customs, society, even religion may be more or less superficial, but most outdoor games demand many ingrained good qualities—virility, hardihood, strength, and a sense of fair play—and

in the days to come the people who have helped to make Alberta a prosperous and progressive province will be no less respected because, on their playgrounds, they demonstrated to the world the fact that they possessed just those qualities which give them the right to be called 'true sports', using the phrase in its best and happiest sense. It has been said that the athletic games in Alberta are of the more vigorous kind—indeed, that they are rough; but the country almost of necessity breeds strong men and well-developed women, sturdy builders of a sturdy West, whose abundant energy requires a wider outlet than croquet, for instance, provides.

The province has reason to be proud of its athleticism. All the Canadian national games are well represented, though lacrosse, it must be admitted, has fewer supporters than baseball, partly because it is a harder game to learn and partly because it is more expensive and needs more time for team practice. Besides numerous baseball leagues, there are baseball clubs in practically every town and village in Alberta.

There are many hockey clubs, and cricket, gaining steadily in popularity throughout the province, is found in the ascendant wherever Englishmen 'most do congregate'. Curling comes in, of course, in the winter. Special mention may be made of Medicine Hat, which possesses, in addition to a fine \$25,000 curling rink, a permanent organization for the continuance of this game. At Banff, in the Rocky Mountains, the game is played throughout the winter on open rinks situated most picturesquely

in the midst of evergreens. The Banff Curling Club has more than fifty members, and is affiliated with the Alberta branch of the Royal Caledonia Club of Scotland.

Rowing has made quite considerable headway. Golf is popular in different parts of the province; the new links at Calgary, 110 acres in extent, are delightfully situated near the Elbow River, and have a magnificent view of the Rocky Mountains seventy-five miles away in the distance. It is claimed that the Calgary course is one of the finest in Western Canada, though, so far as beauty of location goes, the links at Edmonton, while quite different, run the Calgary links pretty close.

As for football, Rugby and 'soccer', Alberta considers herself the 'banner' province of Canada in this respect. In no other province (say its residents) is the game so far advanced, and in no other province is so much interest evinced in this peculiarly British pastime. The English and Scotch furnish the backbone of it, and football has been played in Western Canada for many years. 'Soccer' is popular among the schools and colleges of the province, and in addition to the teams of the Alberta College and the Alberta University the various high schools also train good players. There is no professional football in Alberta, and it is pleasant to see that the game is regarded more as a recreation and an amusement than as a spectacle.

Born as it was in the eventful days when the Indians of the West were on the war-path, nurtured by a vigorous pioneer people who had but few

amusements, and loved those few well, and bred amidst scenes of development and advancement; baseball was first played in the province in 1885. Since then it has grown to full stature, encouraged to a great extent by the large numbers of settlers coming from the United States, where baseball had its original home. The game, as has been said, is now played everywhere throughout Alberta, and, however much Canadians may praise their national game, an unprejudiced observer is obliged to admit that baseball is making greater strides than lacrosse. Baseball was first played professionally in 1907, and it is interesting to note how many juvenile teams there are in the province. This is the clearest indication possible that the game has taken strong hold, and it may be predicted that it will continue to flourish.

For rifle-shooting Alberta is justly famous, Albertan marksmen having of recent years taken high rank at the rifle-meetings in Eastern Canada as well as at Bisley in England.

In a category by itself stands polo, for probably nowhere in the world do they play better polo than in Southern Alberta, and certainly nowhere in the world do they breed better polo ponies, sure-footed, long-winded animals which, brought up in the open, and fed on the luxuriant buffalo-grass of the prairie, are hardy and game to a degree. The foothill country is still a land of horsemen, and to indulge in this splendid sport does not of necessity involve the spending of a great deal of money. Indeed, a well-known English polo-player said recently,

'A man can take a trip out to Southern Alberta and spend the season playing polo, do a little fishing and hunting, and still not spend more than it costs him merely to exist in some places I have been in.' Ponies suitable for the game may be purchased at prices well within the reach of any moderately successful man, and the field on which to practise may be found on the prairie itself, practically on the confines of any town.

Second only to polo in the excitement which it creates and the favour in which it is held is the hunting of coyotes, a recent innovation introduced as an amusement by a few enthusiastic horsemen of the province, who saw how this 'reynard of Western Canada' could be made to furnish sport in the same way that the fox does in England. To the Calgary Hunt Club belongs the proud distinction of being the first hunt club formed in the orthodox manner in the province. In the four years since it was started its membership has grown from about a dozen to just under 100 members. About seven miles from the city of Calgary, on the Sarcee Indian Reserve, there is an ideal country for the sport. The reserve is free from barbed-wire fencing and is very passable for cross-country riding, besides providing excellent cover for the coyote. The hounds used are now a distinct breed known as coyote hounds, and are a cross between the Russian wolfhound and the greyhound; the thoroughbred animals are really handsome brutes.

Of indoor games, one bit of history connected with the arrival of the first billiard-table in the West,

for which the writer is indebted to a charming woman who lives in Edmonton, is perhaps interesting enough to be recorded. The story goes that in 1872 a certain Donald Ross, a Scotchman born in England, who had spent the early years of his manhood in the eastern and western cities of the United States, and who to this day is still well known far and wide in the Edmonton district, was drawn to Edmonton by the rumours of the presence of gold along the Saskatchewan River. In 1876 Ross established the first hotel west of Portage-le-Prairie—as much in self-defence, it is said, as for any other reason, for he found the endless calls upon the hospitality of his bachelor establishment so trying that he hit upon the idea of a hotel as the only solution. He had three billiard-tables for the use of his hotel freighted over the prairies from Winnipeg, a distance of 1,000 miles, paying 10 cents a pound freight upon the first one. In this way the earliest billiard-tables came to Alberta, and the story is further told that most of the men-folk of Edmonton agreed in those days with the proprietor's advertisement that 'A very social evening can be spent in the billiard-room', for history relates that frequently eight men would be found at each table playing pool.

CHAPTER XVII

WOMEN AND THEIR WORK

A WHOLE volume could be written about the province from the woman's point of view alone, and then much would still remain unsaid. To their eternal credit it must be recorded that the women of Alberta have helped bravely and generously in the mighty task of empire-building, which is really what home-making and home-keeping, in pioneer countries particularly, amount to at their best. Whilst pioneer days are practically over, the women still fulfil their womanly tasks with the same vigour and courage as did their mothers who came before them, each of whom felt she had a special part to play in the upbuilding of Canada's 'Last West'. As a sincere admirer of what they have accomplished, the writer has endeavoured to collect some details that throw light upon the conditions of life in Alberta, as they affect women.

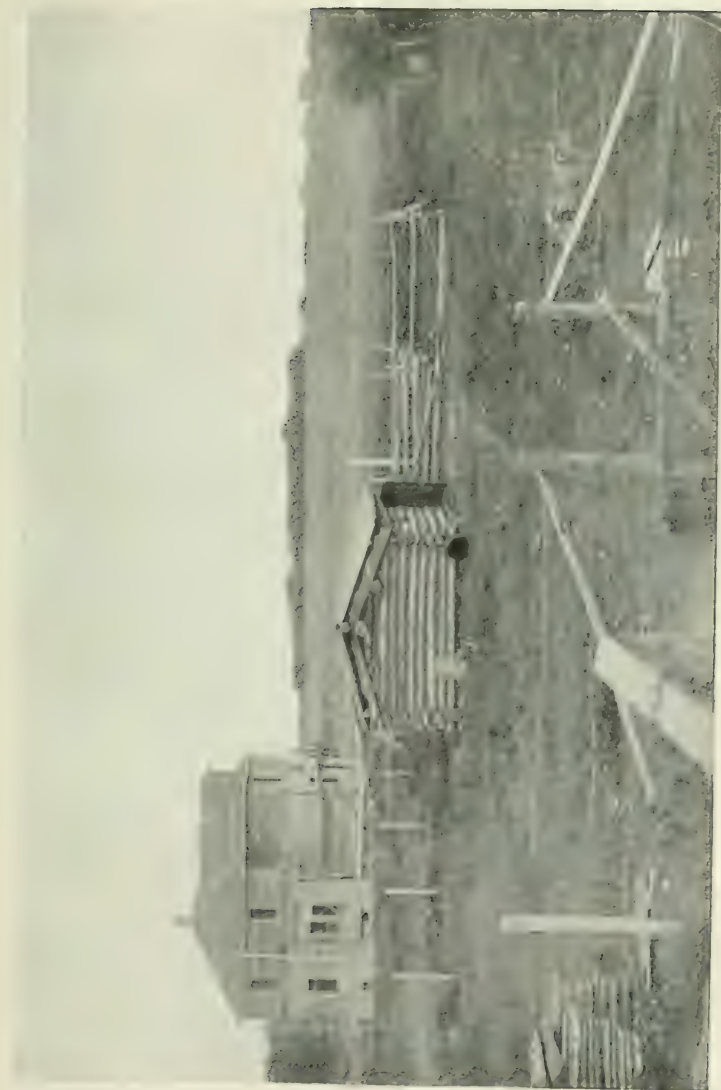
The family life of urban and rural Alberta is much the same as that of older cities and settlements, except, perhaps, that it is a little more strenuous. The conditions, especially when remote from the big cities and some of the towns, are more primitive and are generally harder, while manual labour, excepting for those fortunate ones with capital, is demanded of all as the first necessity of life. Any

man or woman, however, who will work can make money ; of that there is absolutely no question. On the other hand, the man or woman who does not work is looked upon with suspicion, for Canada is a nation of workers, and chose well when she took as her national emblem the beaver—the representative, among animals, of intelligent industry. ‘ Life is real, life is earnest,’ particularly in the West, and the personal effort which is required of all, while it tends to equalize the distribution of wealth, creates at the same time an individuality of thought and action as invaluable in social and industrial life as it is in commercial and political affairs. Nor is incentive to energy lacking, for it is doubtful if anywhere in the world to-day there is to be found an equal rate of material progress, as the result of work well and faithfully performed.

Social conditions in any new country are apt to be regarded with misgiving, and it is undeniable that an idea still prevails in many quarters that the West is a place of ‘ wild and woolly ’ adventure, where ‘ broncho busting ’ by picturesque cowboys is part of every day’s routine, and where Indians, more or less painted and befeathered, are continually harassing unprotected ‘ settlements ’. How very far removed from the actual facts this idea is will already have been gathered from what has been written in this little book on the province of Alberta. If those women for whom Alberta has such a crying need could only be made to realize that in setting out for that land of prosperity they were not leaving behind them all the comforts and good things to

which they may have been accustomed, they and the province would benefit accordingly. Women are needed on the prairies—women of a kind which, happily, is not extinct in Great Britain; brave and energetic souls who will give cheerfully of their best in service and strength. Many of such women, if once settled on the land, would almost surely be induced eventually to throw in their lot with the bachelor farmers who are there in such numbers, and who would gladly provide happy homes among surroundings far beyond the pioneer stage. The West, it should be remembered, is already fairly well settled with peaceful, hardworking farmers of all nationalities, who demand reasonable luxuries and obtain them. Life has lost its rawness, but it retains many elements of the picturesque, and a spirit of goodwill and tolerance which would be amazing in older and more congested countries prevails everywhere.

The contentment and comfort of the home life of the working classes in Western Canada are particularly striking to one familiar with conditions in the 'Old Country'. Poverty is practically unknown, and the general standard of living is high. The people are uniformly well and comfortably dressed, and you seldom or never see a sickly-looking person. Again and again one is impressed with the splendid appearance of the children. So strong and healthy and happy are they that if, instead of showing so much of their prize grain at the numerous agricultural Fairs and Expositions, the 'powers that be' would or could exhibit some of the children, a much more satisfactory result from a colonizing point of view



THE OLD HOME AND THE NEW

would be achieved. Certainly no mother could fail to be impressed by the magnificent physique of the coming generation of Canadians and by their general air of well-being.

Many avenues of employment are open to women in the West. The greatest demand, of course, is for domestic servants, or 'hired helps' as they are called there. Those thus employed are always sure of good homes and liberal wages; indeed, the wages offered should attract a still stronger flow of immigration than is already taking place. Skilled cooks are in great demand, and 'general helps' are needed literally by the thousand. Cooks get from \$20 to \$40 a month in Alberta; a general servant, whose duties include ordinary household tasks, receives from \$12 to \$25, while on ranches in outlying districts the pay is still higher. Seamstresses earn from \$1 to \$2½ a day, receiving, of course, at least two meals at the house where they are employed; and even shop-girls, in such cities as Edmonton and Calgary, earn from \$8 to \$12 a week.

Against this it must be remembered that the cost of living is high, and that an average working girl has to pay at least \$5 a week for her room and board. Qualified teachers in the prairie provinces earn anything from \$600 to \$1,200 a year, according to their qualifications, and teaching is in consequence one of the most popular occupations for educated women. The demand is great and the supply inadequate, which makes the pay correspondingly good. Sick-nurses are not much in demand, except for maternity work, for Alberta is such a healthy

country to live in that invalids are rare and there is little need for such skilled help. Here again the pay is good, \$25 a week being looked upon as a fair average remuneration for qualified nurses. It is necessary for British nurses to be properly qualified; otherwise, they must be willing to take a Canadian training. The length of this training is three years, during which time the prospective nurse receives \$5 a month in the Hospital, with room, board and laundry.

Finally, there is the business woman to be considered—the stenographer, the civil service employee, the book-keeper, as the case may be; and for them Alberta probably offers more and better inducements than either Manitoba or Saskatchewan. The home supply of efficient stenographers does not yet meet the demand, and there exist good openings for bright, competent, properly trained girls, the average salary ranging from \$55 to \$75 a month, though experienced girls can earn still higher salaries. The training given in the so-called business colleges in the province is apt to be inadequate, and many enterprising girls from Eastern Canada have already ‘gone West’ and have been more successful there than at home. For energetic girls, with a little capital, ‘copying offices’ in some of the cities appear to be remunerative undertakings.

It is surprising to find how many of the girls and business women conduct their own ‘real estate’ deals and manage them with a good deal of knowledge. The one great difficulty employers have to contend against—and the writer heard this complaint many

times—is their inability to retain the services of competent women. Sooner or later, except in a few cases, they are almost sure to marry. In every grade of social life there is a scarcity of women, and the opportunities for marriage are consequently numerous. Western ideas of greater freedom between the sexes make it possible for young people to enjoy each other's society to a greater extent than is possible in older and more conventional communities.

The story goes that one of the big transcontinental railway companies actually advertised, as an inducement to attract women to Western Canada, that the men already there were sadly in need of wives. When taken to task for such a novel announcement, the official responsible indignantly declared that it was 'the truth, the whole truth, and nothing but the truth', and that his company was prepared to stand by it! It is probably safe to assert that at least 60 per cent. of the men from the 'Old Country'—meaning, of course, those from Scotland and Ireland as well as those from England and Wales—either go home or send home for the girls they marry. The explanation of this, gravely put forward not once but many times, by the 'old timers', as well as by the younger men, is that the Canadian girls (and it is even truer of the American girls) have extravagant ideas of the value of money. This is principally because those who work for it can make it so easily, and consequently spend it with equal facility (for Westerners are nothing if they are not generous). It is thus hard work for young men in the first stages of prosperity to keep pace with their ideas. On the

other hand, it is said that by the time a girl from the Old Country, who gradually if inevitably relinquishes her Old Country ideas, acquires Western notions of the spending of money, her husband has, by continued success, become able to cope with them.

It is remarkable how many young men, after living in Canada for a couple of years, will start off for a trip to the Old Country, and will think absolutely nothing either of the distance or of the money it costs. Many causes may account for this—a desire to see his own people being, perhaps, the chief one—but the point to be observed is that he is able to *afford* such a holiday. It is unusual to find men, Englishmen, Scotchmen, or Irishmen, who have been in the West for even a few years, and have not made one or more trips home. How many men in England, belonging to the same classes, have either the time or the means to pay a visit to Canada even once in a lifetime? It is all a part of the educative influence of the West, for with a big country all around you and big ideas continually being created on every side, it is not easy to retain old ideas and to keep within old limitations.

To the women who are destined to go as wives to Alberta some idea of the cost of living there may not come amiss. And first it should be noted that, while life in some ways and in some parts of the province is still more or less primitive, it is generally admitted that there are many advantages to be found there which more than compensate for such drawbacks as exist. In many of the towns gas is

used for cooking purposes, and practically all over the province domestic coal of a good though fast-burning quality may be obtained in abundance at very low rates. Then the vacuum cleaner lessens work greatly. Every house has its furnace or steam-heating apparatus going continuously all the winter, thus saving much labour with coal fires. House-rent is one of the most expensive items in the domestic budget. Every city and town is growing so rapidly that houses are increasingly difficult to procure: a sum of \$25 a month is not at all an unusual rent for a working man to pay for a small house. Against this heavy expense must be put the low cost of meat and fuel, two items that usually bulk largely. Butter sells on an average at from 25 to 50 cents per pound; eggs fetch from 25 to 50 cents a dozen, according to the time of the year; milk is charged at \$1 for 12 quarts; potatoes usually at from about 35 to 60 cents a bushel; bacon from 22 to 30 cents a pound, though ham is a little cheaper; tea costs from 25 to 75 cents per pound, about 45 cents per pound being the usual price paid; and sugar about 6 cents per pound. Apples are not dear, as fruits go in the West, a box of 40 lb. costing from \$1.75 to \$2.50, and a 20-lb. box of plums from \$1 to \$1.75. Flour runs from \$2 to \$3.25 per 98-lb. sack; and rolled oats for breakfast food, 35 cents per 8 lb. The Albertans use per head almost as much canned foodstuff as South Americans consume; a 3-lb. tin of tomatoes costs 15 cents; two 2-lb. tins of corn and peas 25 cents; and canned fruits average from 20 to 25 cents for 2-lb. tins.

As we have said, an ordinary working girl will probably have to pay \$5 a week for her room and board, while a stenographer who earns more money will pay \$7½ to \$8 or even \$10, and most likely another dollar a week for her laundry, unless she contracts with some Chinaman, as many of them do, to undertake it for a fixed monthly sum. There is a great need in the cities and towns of Alberta for comfortable boarding-houses where women could live at a moderate rate. If educated, capable women who struggle in the Old Country for a mere pittance—and, alas, there are many such!—would only take their courage in both hands and emigrate to the West, where the field is not so crowded, they would not merely be much more successful themselves, but they would be doing valiant work in making homes for other women who have neither the time nor the money to make homes for themselves.

In the first eight months of 1911, in Edmonton alone, close on 650 women stayed for longer or shorter periods at the Y.W.C.A. head-quarters, where until recently there was accommodation for only thirty girls at a time. This will give some idea of the number who are looking for rooms continually, and pitiful tales are told of women in that city who absolutely cannot find a place to stay in at a price which they can afford. They are consequently compelled to live in tents, though in fairness it must be admitted that many of the tents are delightfully comfortable in the summer, fitted as they are with little gas stoves and often having electric light as well.

That life is far from dull for women in the West

is shown by the many clubs, literary, musical, sports, and social, which exist principally in connexion with the churches and chapels throughout the province. In the winter these clubs have sleigh-rides, dances, and suppers, and in the summer they give garden parties and picnics, while there are hosts of large and small 'teas' and formal and informal parties of all kinds; for, as has been said, the people of the West are hospitable to a degree.

One of the most delightful functions the writer ever attended was a 'banquet' given practically at a moment's notice at a little wayside town on one of the branch lines in Alberta, the entire population of which was no more than three hundred people at the most. The warmth of the welcome and the excellence of the food, however, could hardly have been surpassed. The fish and game were caught and shot locally for the occasion, the vegetables and salad were all home-grown, the bread was home-made, and so were the puddings and cakes. The whole evening went with a most delightful swing, which would not have been possible had not the most cheerful good-nature prevailed, for the accommodation was limited, and there were difficulties to be overcome in the way of keeping dishes and food hot, to say nothing of having to carry (on a wet night) from a house some little distance away all the water necessary for the tea and coffee.

From the English point of view women's clothes in the province are expensive, but the people seem able to afford the prices charged. Canadian women demand and obtain the best articles, regardless of

cost. It is folly to think that because a woman lives in the West she is indifferent to or out of reach of fashion. The big stores in the cities and towns of Alberta exhibit the latest and most up-to-date 'creations' almost as soon as do the stores in London or New York. It is quite possible to obtain the prettiest gowns, hats, and gloves, and other dress accessories without leaving the province. Good paper patterns of well-known reliable makes are also to be had, and many women are exceedingly resourceful with their needles. A first-class dress-maker will charge as much as \$25 for making a gown. It is possible, however, to have good work done at much more reasonable rates, say from \$12 to \$16 for a 'suit', \$8 for a 'one-piece' house frock, and \$6 for a washing dress. Taking the dress of the women as a whole, they appear to be exceedingly trim and well turned out. The almost universal use of 'wash frocks' in the summer is rather amazing when the heavy price demanded for laundering them is considered. Laundry work in Alberta is looked upon as skilled labour, and a laundress easily earns from \$16 to \$20 a month.

CHAPTER XVIII

IMPRESSIONS AND MEMORIES

AMONG the impressions and memories that a traveller in Alberta (especially if that traveller happens to be, as in the present case, from England) carries away with him, the most striking is the unfailing optimism of the people, an optimism which is infectious, and which nothing seems to shake. This is no doubt partly attributable to the climate—to the clear, dry, sunny atmosphere in which the people live and work—and partly to the realization of the fact that there are within reach potent forces, natural conditions, and opportunities upon which a great future can be built. It is assumed, of course, that the development will continue along the same wise lines as those laid down by the founders, and that have been so far successfully carried out by the Government of the province.

An illustration of this optimism came directly under my observation during a recent extended tour of the province. The mental strain as the harvest season approaches becomes very great, and is felt by every one in the country, including the stranger within the gates, even though he is not personally interested. Much of the prosperity of the West depends upon a successful harvest. The year 1910 will long be remembered as an unusually

dry season, and much planting which had been carelessly done produced little or no result, and even entailed heavy monetary losses. The year 1911 promised to be a record one, and hopes ran high of recouping the losses of the previous year, and showing good profits. Unhappily, not all these hopes were fulfilled. One afternoon in August a heavy hailstorm, which covered an irregular track some eight miles in length (and which I witnessed near Lethbridge), did so much damage within half an hour as to wipe out practically the entire year's work of several farmers, who were thus left without reward for all their labour and money. Their crops were utterly spoilt just at the moment when they were ready for cutting.

Only two weeks later in Central Alberta, many miles north of Lethbridge, I was in a district which was partially 'frozen out' by an early frost, and again damage was done to the crops, and loss followed. These occurrences, while they are unusual, do occasionally happen, and farmers are always anxious, particularly about hailstorms, in August. In the instances noted I was struck by the cheerful spirit shown by the sufferers. 'The hailstorm might have been so much worse' was the expression I heard not once but a dozen times; 'and the frost, after all, had been light and not general.' This is true optimism. In this instance, as I have said, the course of the hailstorm was erratic, and happily many in the district escaped damage. Those who escape help those who do not, but with a frost the damage is likely to be more widespread, and all

share in the consequent loss. In the two instances cited, there was general rejoicing because, for some distance in every direction, sufficient crops were still left standing undamaged to enable some of the farmers to reap their harvests and thus to help their less fortunate neighbours over what would otherwise have been a disastrous time for every one.

Next to the optimism of the people, if indeed it does not rank on an equality with it, is the delightful friendliness and kindness of all classes of residents in Alberta, to many of whom I owe a personal debt of gratitude, the deeper because of my inability to reciprocate in any adequate manner much generous hospitality and ungrudging assistance received at their hands. In this connexion memories crowd upon me thick and fast, and much might be written of many interesting people whose acquaintance I then made. This acquaintance not infrequently ripened into friendship during those delightful months spent in Alberta.

By no means the least of many interesting experiences was my visit to the Mormon country. I had been in Lethbridge and had taken the afternoon train—the only one of the day—from that city to Cardston. From there, I had been told, it was worth while to drive across country, through a fine wheat-growing district, and to take in the Blood Indian Reserve on my way, to Macleod, a distance of perhaps 40 miles. Cardston itself, a flourishing town of some 1,500 inhabitants, which has the unique distinction of returning a Mormon representative to the Provincial Parliament, is only 14 miles

north of the International Boundary. It has, moreover, a Customs House, and is one of the ports of entry to the province. Among other things it is rightly proud of the fact that, in spite of the dry weather in 1910, winter wheat grown in the neighbourhood threshed out 30 to 35 bushels an acre. Nor was proof wanting that the 1911 crops were heavy, for in a farming community of 1,500 people it was quite impossible to obtain a conveyance of any sort, on the day I was in Cardston, to take me across to Macleod. Every available horse and man had been pressed into service in the harvest-fields, and if it had not been for the courtesy of the President of the Mormon Church in Alberta, who kindly volunteered to drive me 16 miles across the prairie to his ranch, I should have been obliged to return to Lethbridge by train. The ranch in question is part of the famous Cochrane Ranch, of which mention will be made presently. Here I stayed over night, with the promise that I should be driven the remaining distance to Macleod on the following day.

The advent of the Mormons to Alberta forms an interesting chapter in the history of the province. They were the first people to bring the now famous Alberta Red winter wheat to the front, as they were also the first to demonstrate the practicability of irrigation; two important factors which have contributed greatly to the development of the country.

It was in 1886—the year following the completion of the Dunmore line, and which also saw the beginning of Lethbridge—that the late President Card,

with a small party of eight or ten families, arrived from Utah at what is now known as Cardston, and he was quickly followed by further bands of Mormons. Themselves the children of pioneers, they were well fitted for the work of opening up a new country, and to these patient, courageous settlers Southern Alberta owes much. At first they were looked at askance, presumably because of their peculiar religious and social views. In those days the country was very sparsely settled, and whilst at that time they perpetuated their social customs and religious beliefs among their own people, and to some extent influenced their neighbours, their influence was not far-reaching. In the years that have followed they have, however, proved themselves such excellent colonists and such admirable farmers that praise alone can be accorded to them for the success they have achieved on the lands they own and till to such advantage. It is only just to add that those Mormons who have settled in Canada gave a pledge to the Dominion Government that they would refrain from the practice of polygamy, and though at one time complaints were made that they were violating their compact, investigation proved the charges to be groundless.

It has been asserted that the Mormons were the first to introduce irrigation into Alberta, but this statement will bear qualification. When the Mormons originally took up land in the Cardston district it is true that they did dig an irrigation ditch, but they never used it, and to-day their most successful farmers in that district iterate and reiterate the fact

that, so far as wheat-growing is concerned, 'cultivation, not irrigation,' is the secret of their success.

At the same time they do own a large and very well irrigated tract of land near Raymond, on which they grow beetroot for the manufacture of sugar on a large scale. The factory is owned and worked by them, and they employ English-speaking people to do the team work; the hand work is done under contract by Japanese and Indians. They first tried to work the factory entirely by white labour, but English-speaking people would not do the hand work, which is very tedious. Next they tried to employ exclusively Japanese labour, but the Japanese could not handle the horses, and it was only when they eventually combined the English-speaking and the Japanese labour for the team and hand work respectively, and employed Indians in addition, that they achieved success.

Mention has previously been made of the Cochrane Ranch, which, with its lordly domain of 67,000 acres, was bought some years ago by a Mormon syndicate at \$6 per acre for subdivision into farms. This was five times more than Senator Cochrane had paid for the land some twenty years previously, and to-day it is estimated that the property is worth as much as \$35 an acre; portions of it, indeed, actually changed hands at that price during 1911.

The majority of the Mormons live in village communities for the sake of the social life and the religious and educational facilities made possible by such an arrangement, for the church and the school constitute an important part in the economy of the

sect. In the matter of land tenures the holdings are also arranged so that the owners may live in communities. A small piece of ground, in which garden produce is grown, is attached to each house; the main farms of the Mormons, however, which usually average about 80 acres, are found in the outlying territory around the settlements. A delightful drive in the vicinity of Glenwood, a prosperous little village some sixteen miles over the prairie from Cardston, where the President of the Mormon Church in Alberta lives, revealed what has already been accomplished by these industrious and intelligent farmers.

One of the most impressive sights of the prairie country is seen in a drive along the old trails, trodden in days past by tens of thousands of buffalo, and showing also the harsher and more recent indentations of the wheels of the creaking Red River carts which followed. These trails are often flanked on one side by miles and miles of wheat fields (it is no unusual thing for a 'field' to be one whole mile square, and for several such fields to adjoin each other without any break at all), all golden yellow in the bright September sunshine, and they are bordered on the other by the virgin prairie, a vast sea of grass rising and falling before the breeze and stretching to where earth and sky seem to meet in the far distance.

The young man who eventually drove me, on a glorious day in the early autumn, from Glenwood to Macleod, through just such country as this, was typical of many young men whom I met in the course of my travels in Alberta—young, energetic,

and enthusiastic. He owned in company with two brothers a thousand acres of land, which they farmed themselves, to say nothing of eight teams of horses, in addition to a fine stock of farm machinery and tools. They had bought land on the Cochrane Ranch for \$13 an acre, had sold it within four years for \$25 an acre, and had bought more land at the latter price in a location they thought preferable to their former one, and within a month of making the change they had refused \$35 an acre for their new holding. Some of their land was still unbroken prairie, but they are breaking and seeding it as rapidly as possible, because crops mean money. In 1911 they threshed 25 bushels to the acre near Macleod, and from 35 to 40 bushels to the acre in the Cardston district, and I was told that if this young man and his brothers only worked half as hard as they were in the habit of doing they would still be comfortably off.

It costs on an average from \$3 to \$4 an acre to break prairie land, and a man with a seven-horse plough breaks roughly two acres a day. A gasoline engine and plough, however, to be hired for about the same sum, breaks 15 acres a day, and such a steadily increasing percentage of land is being put under cultivation each succeeding year that many men are making big profits with gasoline engines and ploughs by undertaking contract work for farmers.

Such a man I met at Strathmore, a growing town about 35 miles east of Calgary, on the main line of the Canadian Pacific Railway, where is situated the experimental farm mentioned in Chapter V, whence

I was driven several miles across the prairie to spend a day at Cairnhill, one of the more recently established 'ready-made farm' colonies in the Irrigation Block. The man referred to came originally from Somersetshire; he was one of a family of ten, and his father before him had been a farmer. Seven years ago, dissatisfied with his prospects, he had left England, and after spending five years in the United States he had made his way to Alberta. When I met him he appeared to be perfectly satisfied that he had at last found 'the best all-round country to live in'. The previous year he had made \$6 a day steadily, with full board, from March to September, working for different farmers, and this year he has launched out with a gasoline threshing outfit, satisfied that he will make more money than he has ever done before. There is more than enough work in the particular district he had chosen for half a dozen men similarly equipped. He was shrewd, capable, and kindly, and I have seldom enjoyed any meal better than I did the one which he and I were invited by his brother to share in a small wooden 'shack' away on a half section (320 acres) of land just outside the 'ready-made farm' colony. The brother and his wife had only recently arrived in Western Canada, having left England some eighteen months ago, and it was from them I learnt that in Alberta a 'shack' is a shack if it has a stove pipe, but a house if it boasts a chimney!

In eighteen months they have harvested two crops, and they have been successful enough to warrant the

addition of two more rooms to their original two-roomed 'shack'. It would be difficult to imagine a cosier home, a more capable wife, or three prettier, better-mannered little children. The mid-day meal, as I have said, was excellent, and with genuine regret I bade good-bye to my hostess, who looked the picture of happiness with her little boy in her arms and two small girls clutching at her skirts, as she stood in the doorway of her little 'shack' waving good-bye to us.

The 'ready-made farmers' wives, taken as a community, appeared contented, and more than pleased with life on the prairie, the bright sunshine, exhilarating air, and freedom from worry being potent factors in determining their cheery outlook. They willingly discussed their early experiences, they refused to admit that they found life lonely—a very different thing from experiencing occasional fits of home-sickness—and not one of them seemed anxious even to contemplate a return to England except for a holiday. Most of these women had discovered that they had, in leaving the British Isles for Canada, made the mistake of taking too many clothes with them, and of not taking a sufficient number of light-weight things. They had all heard much of the severity of the winter in Western Canada, which in reality did not prove to be so severe as they had contemplated, but none of them had been told they would find it hot in summer, and consequently they had not equipped themselves for summer weather. Another opinion general among them, gathered in the course of several conversations,

seemed to be that it was wise to take such household furnishings as beds and bedding, linoleum, carpets, curtains, and so on, and particularly crockery (which can be bought so inexpensively in England and packed among the softer things, such as blankets, quite successfully). All these items cost much more in proportion in Alberta than in the Old Country, and settlers' special freight rates make it possible to ship things in bulk from England to Western Canada at a minimum of cost.

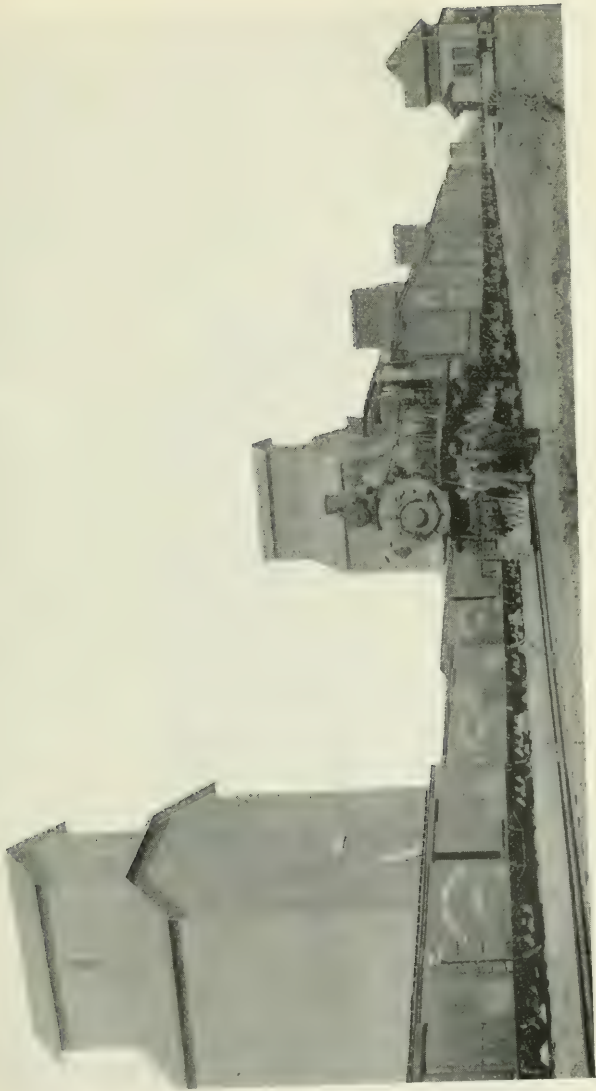
I shall long remember the garden of two English girls in the Cairnhill colony. They were sisters, quite young, not more than twenty-one or twenty-two, who for five years previously had lived in London, keeping house for their father, a professional man earning a very limited salary. Weary of the strain of trying to keep up appearances under such circumstances, these girls, with their father, had migrated to the West but six months before in order to join a brother who was very anxious to secure one of the 'ready-made farms'.

It would be difficult to find a happier household. The girls took a great delight in their garden, to which they introduced me with loving pride, almost pathetic in its intensity. There were wide sheets of pansies and mignonette, surrounded by begonias, wallflowers, pinks, sweet williams, stocks, and other fragrant old-fashioned flowers, with walls of sweet peas, a perfect riot of colour, and tall sentinel hollyhocks of mauve and cream and yellow. It seemed difficult for them to realize that these had all grown in less than five months, in what was, when they

arrived, absolutely virgin prairie covered with grass. Every scrap of work in the garden from the original breaking of the land to the careful tending of the flowers had been done by these two girls, whose garden in itself would, they assured me, have been compensation enough, had such been needed, for any advantages they might have left behind them in the Old Country.

From the contemplation of the pleasures of an old-fashioned English flower garden in the desert of a Western prairie the reader's attention is invited to something less ornamental but far more practical in the life of the farmer. The grain elevators dot the vast expanse of the prairie, much as the old windmills once dotted the fens and flat lands of East Anglia, though they are not half so picturesque. Like the Norfolk windmills, these grain elevators are often the most conspicuous feature of the landscape, and have been described as suggesting 'deformed lighthouses in a sea of grass and grain'. They mean so much in a Western farmer's life that they deserve at least a passing mention. When their inner workings are understood their effect on the landscape may be overlooked.

A visit to one of them is full of practical interest, as it throws light upon the harvesting operations of these expanding wheatfields. Throughout the West it should be remembered that threshing is generally done in the fields or perhaps I should say on the prairie itself, and not in the farm-yards, as in the Old Country. The puffing, snorting steam or gasoline threshing machine is set up in the harvest field;



GRAIN ELEVATORS ON THE LINE OF THE CANADIAN NORTHERN

an innumerable procession of wagons piled high with the golden sheaves of grain drives up to the mouth of the threshing-machine, and each delivers its rich burden into the double-funnelled machine. From one of these funnels is blown the straw, and from the other the grain is poured into an improvised granary. From this receptacle the grain is carted to the elevator, and on to the 'dump', where the wagon is tipped backward and the grain unloaded into the 'pit' below, and then 'elevated' in little buckets into the cleaner. During this latter process damaged grain, alien seeds, and all dust are blown away, and the good grain passes, free from extraneous matter, into a hopper, where it is weighed, and is then ready for shipment. Some of the methods by which the farmer can subsequently dispose of his wheat have already been described in Chapter VII.

I cannot imagine any pleasanter mode of travelling across the prairies, when the trails are good, than in a high-powered automobile, and it is amazing to find, in a province which prides itself on being one of the premier ranching countries in the world, such a large number of motor cars in use. It is not at all unusual to find twenty-five or thirty 'autos' in a budding town with a population of 300 or 400. The only effect these machines have had on the ranching industry has been to eliminate the poorer breeds of horses, and to raise the standard of horse-flesh generally. The 'draught' horses throughout the province are magnificent animals, and as the tide of settlement and prosperity increases horses of this class are more and more in request, until

to-day the price of heavy horses is higher than ever before. With the advent of prosperity a demand has commenced for well-bred riding and driving horses, and has been promptly met by the supply. Throughout Alberta everything must be of the very best, and the reason that to-day the province boasts of finer horses of all classes than heretofore is that the people are richer, more prosperous, and can therefore afford to pay good prices.

I believe that there is one place in the province where 'autos' are banned, and horsed conveyances reign supreme, and that is at Banff, in the Rocky Mountains. The site of that little town is the property of the Dominion Government, which is responsible for the excellent carriage roads and bridle paths provided for the comfort and convenience of visitors. Not many people, perhaps, are aware that within a stone's throw of this favourite summer resort, where grass mounds and old arrow-heads now mark the place of the palisades, Upper Bow Fort stood at the beginning of the nineteenth century. To-day, across the Bow River, one has a magnificent and uninterrupted view of the valley beyond, and as far as the eye can reach may be traced the outline of many mountains whose towering majesty, rugged beauty, and snow-capped peaks add grandeur to the scene. This part of Alberta is a land of enchantment, and the memories of the days spent at Banff are memories of sheer delight. The azure blue of the sunlit sky, the dark, sombre tints of the forests of pine and spruce which cover the slopes of the mountains, their peaks but newly flecked

with the first fresh snow of the season, the deep ultramarine of the streams accentuated by the foaming whiteness of the small rapids looking like drifts of liquid snow, the grey-blue haze fringing the horizon—all these things combined make a picture that, once seen, is not easily forgotten. There are many delightful excursions to be made in the neighbourhood of Banff, and visits to the Museum, to the animal paddock, where are some twenty or more buffalo as well as some Rocky Mountain sheep, and to the Hot Springs should certainly not be omitted, for each is well worth the time necessary to see it.

In addition to several comfortable hotels there are numerous cottages available for renting, which, situated as they are among the pine trees, afford shady and delightful dwelling-places amidst scenery and climate probably unsurpassed in the North American continent. As Banff has become Government territory, all lands are leased directly from the Government in lots at prices varying from \$8 to \$15, according to size and situation. Many people build their own cottages, and reside in them during the summer months. Banff retains its own characteristic features, even so far as the names of its streets are concerned. Nearly all of them are called after animals, as Caribou, Wolf, Elk, Moose, Squirrel, Marten, Beaver; in this respect the town differs entirely from all the others in the province.

Banff, however, possesses but one of the several national parks to be found in Alberta; Jasper Park, on the line of the Grand Trunk Pacific Railway, is

the most important and largest acquisition to the already immense area of reserved forest lands set aside by the Dominion Government. This park contains 5,000 square miles of valley and mountainous country, and probably no portion of the territory in the whole of the North-West has retained more old historic landmarks and associations than this extensive tract. Here are to be found the ruins of Jasper House and Henry House, old trading posts of the Hudson's Bay and North-West Companies. As the famous Yellowhead Pass forms the entrance to the park, this magnificent reserve, where the valley of the Athabasca River is wider than that of the Bow River further south, where the mountains do not overhang so closely, and where there are prairies of half a mile to a mile in width, stretching for several miles, will be brought into touch with the outside world as soon as the trans-continental line now being built by the Grand Trunk Pacific is completed to that point. Then another wonderful mountain sanctuary, far removed from the din and strife of the busy world, will be thrown open to travellers seeking the peace and tranquillity of some new Mecca.

The Buffalo Park at Wainwright, which is also on the trans-continental line of the Grand Trunk Pacific, contains the largest herd of wild buffalo in the world. Some three years ago the Dominion Government purchased from Michael Pablo, a Mexican half-breed, of Kaliespell, Montana, the only large herd of buffalo in existence, and the animals were shipped in instalments to Wainwright. The total number brought from Montana was said

to be 850, while 50 more head were secured from other points in the Dominion and the States. In the latter case a few were purchased in Oklahoma and Texas. The natural increase at Wainwright has so far added about 125 buffalo to the herd. The park in which they are enclosed is upwards of 100,000 acres in extent; the north end is within half a mile of the town of Wainwright, a divisional point on the Grand Trunk Pacific. It is an ideal grazing ground, the land being rolling and partly wooded, besides possessing numerous sand dunes, which provide the 'wallows' that the buffalo so greatly enjoy. Scattered throughout the park are many small fresh-water lakes with sandy beaches and water as clear as crystal, while the luxuriant growth of native grass produces an abundance of pasture the year round. The whole estate is surrounded by a fence, 75 miles in length, of 10-ft. spring steel woven wire fencing, which is said to have cost \$1,000 a mile. This Buffalo Park will become in time one of the leading attractions in Alberta for trans-continental tourists, and the little town of Wainwright will be visited by thousands of people from all quarters of the globe. At Wainwright I saw a small, fair-haired tot who bore as her Christian name the unpoetical name of the town, for it was her distinction to have been the first child born there. Under the terms of a unique Dominion statute, she had been granted by the Government a 'town lot', which in the three or four years it has been her property, has considerably increased in value.

Many other impressions and memories might be

recorded, but considerations of space forbid. Of all the recollections of the West to those who know and love the West, the one that lingers longest, next to the optimism and friendliness of the people, is the undying memory of the prairie. There is strange magic in its lure, and I can still hear the wild harmony of its infinite spaces singing in my ears, while, often as in my own country I look low to the West, dreams of the mountains and foothills, and memories of journeys over the trails which are passing away, come back to me as do the words of that poet ¹ who, writing of other prairies, has said :

I listen long
 . . . and think I hear

The sound of that advancing multitude
Which soon shall fill these deserts. From the
 ground
Comes up the laugh of children, the soft voice
Of maidens, and the sweet and solemn hymn
Of Sabbath worshippers. The low of herds
Blends with the rustling of the heavy grain
Over the dark brown furrows.

¹ William Cullen Bryant.

APPENDIX A

SUMMARY OF THE ACREAGE AND YIELDS OF THE
LEADING GRAINS IN ALBERTA DURING THE LAST
10 YEARS.

	Year	Crop area in acres	Total yields in bushels	Average yield per acre	Average yield
Spring wheat . . .	1910	450,493	5,697,956	12.65	17.69
	1909	289,781	5,877,486	20.28	
	1908	212,677	4,001,503	18.81	
	1907	123,935	2,261,610	18.25	
	1906	115,502	2,664,661	23.07	
	1905	75,353	1,617,505	21.47	
	1904	47,411	786,075	16.58	
	1903	59,951	1,118,180	18.65	
	1902	45,064	850,122	18.86	
	1901	34,890	857,714	24.58	
Winter wheat ¹ . . .	1910	142,467	2,206,564	15.49	22.04
	1909	86,627	2,079,639	24.01	
	1908	104,956	3,093,422	29.47	
	1907	83,965	1,932,925	23.02	
	1906	61,625	1,301,359	21.12	
	1905	32,174	689,019	21.42	
	1904	8,296	152,125	18.34	
	1903	3,440	82,418	23.96	
Oats	1910	492,589	12,158,530	24.68	34.50
	1909	603,736	23,967,998	39.70	
	1908	431,145	15,922,974	36.93	
	1907	307,093	9,274,914	30.20	
	1906	335,728	13,136,913	39.13	
	1905	242,801	9,514,180	39.19	
	1904	180,698	5,609,496	31.04	
	1903	162,314	5,187,511	31.96	
	1902	118,997	3,776,976	31.74	
	1901	104,533	4,253,284	40.69	
Barley	1910	90,901	1,889,509	20.79	24.61
	1909	110,249	2,596,909	23.55	
	1908	77,867	1,949,164	25.03	
	1907	54,698	1,082,460	19.79	
	1906	73,588	2,157,957	29.32	
	1905	64,830	1,773,914	27.36	
	1904	61,549	1,608,241	26.13	
	1903	42,219	1,077,274	25.52	
	1902	22,201	473,108	21.31	
	1901	13,483	442,381	32.81	

¹ No winter wheat grown prior to 1903.

ENGLISH EQUIVALENT OF CANADIAN MONEY

5 cents (known as a 'nickel') = $2\frac{1}{2}d.$
10 cents („ „ 'dime') = $5d.$
25 cents („ „ 'quarter') = $1s. 0\frac{1}{2}d.$
1 dollar = $4s. 2d.$

An English sovereign is worth \$4.86.

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